Lectures
ON THE
PHYSIOLOGICAL PATHOLOGY OF THE BRAIN.

Delivered at the Royal College of Physicians of London, July, 1876,

BY C. E. BROWN-SÉQUARD,
M.D., F.R.S., F.R.C.P. LOND., ETC.

LECTURE I.—PART IX.

ON A GREAT VARIETY OF FORMS OF PARALYSIS DUE TO DISEASE IN ONE SIDE OF THE BRAIN.

Cases of paralysis of the two lower extremities, apparently caused by disease in one side of the upper parts of the brain, of the crura cerebri, of the base of the anterior and middle lobes, and of the pons Varolii — Traumatic lesion of the brain, producing paraplegia, and cured by local means of treatment — Frequency of paraplegia from lesions of the cerebellum and pons Varolii.

I BELIEVE that no one can deny the very great importance of facts such as those I have mentioned, and according to which a lesion in one side of the brain can produce paralysis in the four limbs, or in three, or in one on one side and another on the other side (the two upper ones, or a lower one and an upper one). There is still more value in the facts I will now relate, which show that a paralysis of the two lower extremities can also be due to a one-sided cerebral lesion.

11. *Paraplegia may appear seemingly caused by a lesion in one side of the brain.*—Long ago I maintained that a paralysis of the two lower limbs, depending on a lesion either in one or in both sides of the brain, is always accompanied by some paralysis of the arms, and frequently also by a paralysis of certain muscles of the face, the tongue, or the eyes. Many cases I had seen had led me to that opinion. A number of other cases have only confirmed what the first had shown, so that now, as much as ever, I believe that a pure and simple paraplegia very rarely, if ever, is caused by a lesion of the brain. But there are cases of paralysis of the lower limbs connected with brain disease in which very little alteration was found in the movements of the arms, the face, &c., or in which even nothing at all was detected in the arms, face, &c., which implies that the diminution of power in those upper parts of the body was very slight. Those cases certainly deserve the name of paraplegia.

We are now very far indeed from the time when Dr. Matthew Baillie* tried to prove that paraplegia is usually a symptom of brain disease. As, on the one hand, the spinal cord was rarely examined up to the end of the first quarter of this century, and as, on the other hand, symptoms of brain disease often coexist with paraplegia depending on spinal affection, the mistake committed by Baillie is very easily explained. An able surgeon, Henry Earle,† followed the great physician just named. Both Dr. Baillie and Mr. Earle mistook cases of locomotor ataxy for cases of paraplegia due to brain disease. Indeed, the description given by Earle of the symptoms of paraplegia due to brain disease is an excellent one of locomotor ataxy.‡ Earle, however, gives some cases of paraplegia really caused by brain disease—one, particularly, in which that symptom was due to inflammation of the meninges round the pons Varolii.§

Abercrombie‖ very justly observes that there is a good deal of uncertainty in cases of paraplegia connected with brain disease, from the circumstance of there having been in general no examination of the spinal cord. He adds that "it may still be considered as a point not absolutely ascertained, whether disease in the brain produce paraplegia without any affection of the cord." The question is now solved, and I believe that no one will read the cases of which I will give a very short outline without concluding that paraplegia is sometimes caused by disease of the brain without any organic disease within the spinal cord.

Of the large number of cases of disease limited to a part of one cerebral hemisphere I will mention only the following. Calmeil¶ relates that a woman was attacked with stammering, uttering incoherent words, paralysis of the lower extremities, after violent delirium and screaming. There was no paralysis of the arms and general sensibility, and the higher senses remained unaltered. Five months after the attack she lost consciousness, had convulsions, and afterwards lost the power of moving the four limbs, and a month later she died. An old, organised cyst, extending from the frontal bone to the occipital, over the left hemisphere, and adhering to the two folds of the arachnoid, was found filled with a large clot an inch and a half in thickness. Evidently in this case two effusions of blood occurred, the first one producing paraplegia, the second rendering the paralysis general, and causing convulsions and loss of consciousness. A sudden pressure on one half of the brain from above downwards can, therefore, produce paralysis, not only in the lower extremity on the opposite side, but also in the lower extremity on the corresponding side. Not only is such a fact clearly in opposition to the admitted views, but also there is in the absence of paralysis of the arms, or, at least, of the right one, a very powerful argument against the received notions regarding the mode of origin of paralysis.

In a case published by Dr. De Beauvais† there were attacks of incomplete left hemiplegia, followed by paraplegia, which at last existed alone. There was considerable alteration of the right crus cerebri, which contained a tubercle. This case is contrary to the admitted views—first, because hemiplegia, which should have existed permanently, only occurred by attacks; secondly, because, if it is easy to explain the paralysis of the left lower limb, it is impossible to explain that of the other lower limb, unless we suppose that there was an affection of the spinal cord—a feature about which the history of the case is dumb.

Bonnet‡ gives a case in which there was paralysis of movement and sensibility in the lower limbs, especially the *left* one. A small tumour was found on the *right* side of the surface of the brain near the optic nerve, and a small abscess close by. In this case there was, indeed, hardly a sufficient cause for the production of paralysis anywhere, and still paraplegia appeared, the loss of movement being, however, greater in the right lower extremity.

Giraudet§ gives an interesting case of large aneurism of the internal carotid and of the ophthalmic artery on the right side, pressing considerably on the base of the right hemisphere. Gradually the following symptoms appeared: first, loss of sight of the right eye; then difficulty of speech, diminution of olfaction and intelligence; and at last paralysis of the inferior limbs and coma. Nothing is said unfortunately of the state of the spinal cord, but the succession of symptoms, their progress, the association of paraplegia with coma, tend to show that all the symptoms, including paraplegia, depended on the alteration found in the brain.

Guillemin‖ gives the case of a woman who had two attacks of apoplexy, after which she remained paraplegic. The autopsy showed two cavities, each of the size of a filbert, containing a sanguineous serosity, one in the right corpus striatum, the other in the optic thalamus on the same side. There was also about two ounces of clear serosity in the lateral ventricles. Nothing is said of the condition of the spinal cord, but the paralysis of the lower limbs was evidently connected with the hæmorrhage in the right corpus striatum and the right optic thalamus.

In the account of a case about which, so far as I know, details unfortunately have not been published, Dr. Beith¶ states that for two years a man had suffered from amaurosis

* Observations on Paraplegia, in the Transactions of the College of Physicians, v 1 vi., 1820.
† Medico-Chirurgical Transactions, vol. xiii., p. 516 et seq.
‡ See particular y pp. 520 and 521 of the paper just quoted.
§ Loc. cit., p. 528 et seq. ‖ Loc. cit., p. 451.

* Traité des Maladies Inflammatoires du Cerveau, vol. i., p. 374.
† Bulletins de la Société d Anatomique, vol. xx, 1845, p. 105.
‡ Bulletins just quoted, vol. xix. 1844, p. 200.
§ Gazette des Hôpitaux, 1827, p. 105, quoted by Gintrac, loc. cit., vi., p. 208.
‖ Thèse, Paris, 1818, No. 100, p. 10, quoted by Gintrac, loc. cit., vol. vii, p. 230.
¶ Transactions of the Pathological Society, vol. iii., 1852, p. 43.

and paraplegia, which came on progressively, and at last were complete. There was a tumour which had sprung from the right crus cerebelli, the size of a large walnut, and which had almost completely destroyed the right half of the pons Varolii, and the corresponding half of the cerebellum. The spinal cord was not examined. In the absence of details all we can say of this case is that there was evidently an increase of paraplegia corresponding with the growth of the tumour.

In a case resembling the preceding, and recorded by Toulmouche,* gradually increasing paraplegia, followed by paralysis of the upper limbs, was apparently caused by a large tumour pressing on the left side of the pons Varolii.

Another case like that of Dr. Beith, but with more details, was published by Roulland.† A tumour pressing on the crus cerebelli and the pons Varolii, on the left side, had produced progressive paraplegia.

Pretty much the same thing was observed by Hermann Romberg,‡ who found paraplegia caused by a tumour of the right crus cerebri and the right side of the pons Varolii.

Other cases of tumour pressing on one side of the brain, and especially on the pons Varolii, and causing paraplegia, have been recorded. I will only mention one more, published by Mr. T. Salter.§

Abercrombie‖ relates a most important case, in which, although there was no autopsy, several points show that an affection in some part of the encephalic organs must have been the cause of paraplegia. A girl fell on the back of her head, and was seized with paraplegia and retention of urine. At the seat of the injury, on the occipital bone, there was acute tenderness, and a moderate pressure upon that part produced insensibility, which was produced again whenever the pressure was repeated. Crucial incisions, made many times, produced each time a great but not lasting amelioration, but these operations acted better and better, and at last a cure was obtained. In this remarkable case the traumatic cause and the influence exerted by repeated local means of treatment all point out that some local affection in the base of the brain had caused the paraplegia.

It is well to put together with that case one of Mr. Guthrie's,¶ in which a man who was struck by a shot, and had a fracture of both parietal bones, lost consciousness, and on recovering found that he had lost the use of both legs. Ten days afterwards he was trephined, and the use of the legs returned, though he was not able to walk for some weeks. In this case, and most likely also in Abercrombie's case, the lesion causing paraplegia was not limited to one side of the brain. I mention this now, however, because they seem to leave no doubt that a brain-lesion can produce paralysis, if not exclusively, at least chiefly, in the lower extremities.

Many cases of disease of the cerebellum have been published showing that paraplegia can arise from a lesion of that organ. As a rule, I can say, from my personal observation (which I have purposely avoided speaking of, because I infinitely prefer to give cases observed by men who did not hold my views), that some degree of paralysis—local weakness, if you prefer to call it so—exists in most cases of disease of the cerebellum. This symptom is, indeed, the most common of all the morbid effects of disease of that organ. It is even more frequent than cephalalgia, amaurosis, and vomiting, the three ordinary manifestations of a cerebellar lesion. I will only mention, rapidly and without details, the following cases of paraplegia, apparently caused by disease of one side of the cerebellum. Binard,** Serres,†† and Dr. Lockhart Clarke‡‡ have published cases of paraplegia allied with disease of the left side of the cerebellum. Forget,§§ Millard,‖‖ and Morgagni ¶¶ have given cases of paraplegia allied with disease of the right side of the cerebellum. In an important case of Mignot's* there was incomplete paraplegia, seemingly caused by a tumour under the tentorium, and pressing upon the left side of the cerebellum and the left posterior lobe of the brain.

In another lecture I will mention many cases of disease occupying part of the two sides of the cerebellum or of the pons Varolii, and some cases of disease of the motor ganglia on the two sides, having caused paraplegia. I will now only say that, taking a broad survey of the cases of paraplegia connected with brain disease, whether confined to one side or occupying part of the two sides, it is extremely remarkable that that kind of paralysis is much more frequently caused by—or, at least, allied with—disease of the cerebellum or of the pons Varolii than by lesions of other encephalic organs. If paralysis depended, as is universally admitted, on the cessation of action of the part found diseased, there would be no paralysis from disease of the cerebellum, which is neither a place of passage of voluntary motor conductors nor a centre for voluntary movements; and there would be either hemiplegia or a paralysis of the four limbs in cases of disease of one half or of the two halves of the pons Varolii.

* Gazette Médicale de Paris, 1843, p. 59.
† Bulletins de la Société Anatomique, 1840, p. 81.
‡ Quædam de Ponte Varolii; Bonnæ, 1838, p. 18.
§ Edinburgh Medical and Surgical Journal, 1815, vol. ii., p. 469.
‖ Loc. cit., p. 195.
¶ Quoted by Dr. Samuel Wilks in Guy's Hospital Reports, Third Series, vol. xii., 1868, p. 201.
** Gazette Médicale de Paris, 1840, p. 697.
†† Journal de Physiologie de Magendie, vol. iii., p. 139.
‡‡ Biennial Retrospect, published by the New Sydenham Society, 1873-74, p. 118.
§§ Gazette Médicale de Paris, 1838, p. 789.
‖‖ Bulletins de la Société Anatomique, 1857, vol. xxxii., p. 372.
¶¶ De Sedibus et Causis Morborum, Epist. lxii., No. 15.

EUCALYPTUS GLOBULUS AS A CURE FOR AGUE.

BY JOHN CURNOW, M.D. LOND.,
PROFESSOR OF ANATOMY IN KING'S COLLEGE, ASSISTANT-PHYSICIAN TO KING'S COLLEGE HOSPITAL.

WHILST there is an almost complete unanimity as to the advantageous effect of the cultivation of the eucalyptus tree in the removal of malarial fevers from marshy districts, foreign observers differ greatly in their estimate of the value of its preparations in the treatment of these diseases, and very few, if any, trials have as yet been made of them in this country. The experiments of Fichter at Basle, and of Hertz at Copenhagen, gave almost negative results; whilst those of Groos in Hungary were extremely favourable. Further investigations are required to clear up these discrepancies, which are doubtless due to the difference of the preparations made use of, and the varying doses in which the drug was exhibited, as well as to the length of time that the disease had existed, and perhaps also to the place of growth of the trees from which the preparations had been made. Hertz thinks that old cases will yield better results than new ones, but that recent ones are sometimes very speedily cured by this drug is sufficiently evident from the notes of the two cases which are appended. The cases came under my care whilst I undertook the temporary charge of the patients at the Seamen's Hospital for my friend Dr. Harry Leach. The results are the more important because when I prescribed the eucalyptus I was very sceptical as to its value; for, with the exception of the chinchona alkaloids and arsenic, I had always before observed a signal failure of the numerous alleged remedies for intermittents. Amongst these were the sulphites of magnesia and soda, salicin, sulphate of beberia, picrate of potash, &c., and they had all been administered most freely. Moreover, both patients were under observation for some days before the medicine was exhibited, in order that the severity of the cases might be properly estimated, and that no fallacy might arise from the spontaneous subsidence of the disease, as occasionally occurs from a change of residence. The preparation of eucalyptus that I used was the tincture made by Messrs. Savory and Moore, and, except an agreeable feeling of warmth in the mouth and pharynx, no appreciable effects but the rapid cure of the fever were noticed.

I had hoped to have made a more extended trial of the drug before publishing these cases; but ague is so very seldom seen in London that it may be a considerable period before I have another opportunity, and wider and more exact experiences can be so readily obtained in districts where malarial affections are endemic that I have thought it better to record them at once.

* Gazette Hebdomadaire de Médecine, 1875, p. 827.

CASE 1.—S. S——, aged eighteen, a Norwegian, was admitted May 23rd, 1876. He had been suffering from intermittent fever for four or five weeks. The attacks were moderately severe and of a well-marked tertian type. An expectant plan of treatment was pursued until June 9th, and during this period the paroxysms recurred on alternate days with the utmost regularity. They began at 10 A.M., reached their acme between 1.30 and 3 P.M., and passed off about 6 P.M.; thus lasting about eight hours. The highest temperatures varied from 104·8° to 105·6°. On June 9th the tincture of the eucalyptus globulus was given in one-drachm doses three times daily. The next day, on which another attack was due, his temperature only rose to 100°, and on the 12th to 100·4°; and after this date no further paroxysm occurred during the remainder of his stay in the hospital. On physical examination, a systolic bruit was heard over the apex of the heart, but this was evidently of some standing, and had so far given rise to no symptoms. The splenic dulness was normal.

CASE 2.—C. O——, aged forty, a Dane, was admitted on June 19th, 1876. The attack commenced on June 14th, and was of the ordinary tertian type. The paroxysms were very severe, and extended over nearly twelve hours on an average. On June 27th the temperature was carefully taken at short intervals by Mr. Lacy, the house-physician. At 10.30 A.M. it was normal, at 11.30 it had risen slightly, and soon after rigors set in; at 12.40 P.M. it was 101·6°, at 2.20 P.M. 105·6°, at 2.40 P.M. it had reached its highest point, 106·4°, at 3 P.M. it had fallen to 105·4°, at 6 P.M. to 101·4°, at 9 P.M. to 100°, and at midnight it was still above normal at 99·2°. The fit on the 29th was quite as severe. On July 1st, just before the next attack was due, the expectant plan of treatment which had hitherto been pursued was given up, and the tincture of the eucalyptus exhibited in drachm doses three times a day. The next two paroxysms were much shortened in length, and the temperature did not rise quite so high. On the 5th the dose was increased to two drachms three times daily, and he had his last attack on the next day. He was kept under observation until July 15th, and continued taking the medicine up to that date. This patient's splenic dulness was increased in extent, and the edge could just be felt. He had suffered from an attack of ague nine years before.

Warwick-street.

ON CHRONIC ULCER OF THE STOMACH.

BY JOHN RICHARD WARDELL, M.D., F.R.C.P.,
SENIOR PHYSICIAN TO THE TUNBRIDGE WELLS INFIRMARY.

(*Concluded from page 423.*)

IN saying a word on the *diagnosis*, it can hardly be contested that there is, and not infrequently, not a little difficulty in coming to a decision as to whether this complaint be or be not present. In a large number of diseases with which the physician has to deal there are certain cognisable, significant, and well-understood conditions, which, when thrown into the scale of evidence, leave no doubt on the mind as to the nature of the malady. In this affection it often happens that such precise and absolute conclusions are not to be arrived at. As regards the ailments incident to the three great cavities, something of hesitation and doubt must always qualify our opinions. And as pertains to ulcer of the stomach these observations are particularly applicable, because its prominent and distinguishing symptoms are, each and all, the leading symptoms of other forms of disease; because none can be strictly regarded as pathognomonic; and because one or more of what are deemed cardinal symptoms by which it is more commonly recognised may be but slightly pronounced or entirely wanting. In illustration of what is now maintained, to take the symptom *pain*: it may be felt, and in a very characteristic manner, at the place where it is very generally experienced in gastric ulcer, and yet be dependent upon other causes; it may be there from simple irritation of the lining membrane when there is even no abrasion of the gastric surface; it may be from mere offending ingesta; it may come and go with intervals of freedom, precisely as we know such to be the case in this ulceration, and be only gastralgia. Chronic gastritis with gastorrhœa will produce pain at the ensiform space; obstruction or narrowing of the biliary ducts, and aneurism and other deep-seated tumours, sometimes give rise to epigastric pain, which may come on paroxysmally and bear much similarity to the pain caused by the disease now considered. Again, in that form of cancer which is spread over the gastric membrane, which is called *cancer en nappe*, and which cannot by palpation be discovered, there may be epigastric pain; and also in malignancy at the pylorus, when the tumour cannot be felt, as is sometimes the case, pain may be there experienced. Pain, then, is insufficient for diagnosis. A good deal of the same kind of reasoning might be observed with regard to *sickness* and *vomiting*, which are the symptoms and effects of various other causes than gastric ulcer. They may be from ingesta or other irritants carried into the organ, as in cardialgia; from gastritis; and from malignancy. Violent neuralgia will give rise to sickness and vomiting. In cancer, these symptoms may come on after longer or shorter intervals, just as in simple ulcer. In both affections they may not, from first to last, be very marked nor yet very recurrent. Neither the frequency of the ejections nor the matter ejected will alone suffice to be our guide. In a simple ulcer, as in cancer, the contents may in varying degree be mixed with blood; and in both affections there may be that kind of œsophageal regurgitation which indicates the presence of organic disease. And, once more, to speak in this manner of *hæmatemesis*, which, although a very constant symptom of gastric ulcer, is not in every case present. Again, vomiting of blood may be produced by a variety of causes in addition to that of ulceration. Blood sometimes comes from the stomach, as if vicariously, on the cessation of hæmorrhoids and during the irregularities of the catamenia; and we also know that, under other and less understood conditions of the system, blood may proceed from the gastric membrane in those of hæmorrhagic tendency, just as epistaxis may supervene on puberty or adolescence. In acute gastritis there may be bleeding from this source; and in splenic and portal congestion sanguineous fluid, and sometimes to a large extent, may be regurgitated into this cavity and ejected. And in cancer of the stomach periodic losses of blood, more especially when this disease has made considerable progress, are by no means uncommon. In this affection, when it assumes a slowly advancing and an insidious form, and when the tumour is small or may not at all be recognised, losses of blood may come on, and considerable intervals intervene, without much emaciation, and this may closely resemble gastric ulcer. The best rules for our guidance will be a general review of all the positive as well as negative facts. When, on careful examination, no tumour can be felt in the pyloric region; if there be alternations in the pain; if food seem to bring it on, and there be repugnance to food because it gives discomfort; and if there be, more especially in pale and anæmic women, a craving and capricious appetite, and the epigastric uneasiness continue so long as the digestion is carried on; if the pain dart up behind the sternum and through to the back or into the hypochondria, and is increased on moderate pressure over the stomach; if there be vomiting of blood, which may also be of the coffee-grounds character or black vomit; if there be occasionally melanotic stools; and if there be general wasting and loss of strength,—such indications are exceedingly presumptive of ulceration. In cancer, the tumour can, as a rule, be felt: if at the pylorus, it can mostly be discovered near, or as if passing under, the right costal edge; and if at the cardiac end, the situation of the enlargement will vary with the emptiness or fulness of the stomach. In cancer, the wasting and cachexia are more marked, and the features will sometimes assume the aspect of old, whitish, yellowish wax; and the clinical history, sex, and age of the patient would in some measure modify our opinion. In ulcer of the stomach, there may not be much loss of flesh; and, as before remarked, the tongue sometimes looks preternaturally red and clean, and there is much thirst.

In making, in conclusion, a few general remarks pertaining to the *treatment* of this affection, it is needful with emphasis to insist that the strict observance of rest and quiet is a consideration which should precede the adoption

of all other rules and remedies; and by these terms should be implied the physiological rest of the organ, as well as the abstention from all unnecessary activity of the voluntary muscular system. That movement to which the stomach is stimulated in the process of digestion should be kept as subdued and passive as possible, in order that reparation may be carried on in the part or parts of lesion, or, in other words, that cicatrisation may be formed. The active motion and the distension of the organ must of necessity tear apart new bonds of union, and hence those granular formations which in their reparative efforts are effecting the healing up of the sore, are broken down or swept away, and the ulcerative surface continues, precisely as when the same morbid action obtains in other and more apparent parts of the body, and when motion prevents the cohesion of or growing up of surfaces. The strength of the system in general should be conserved as much as possible, and tissue-waste reduced to a minimum. In briefly enumerating the most important of the therapeutic agents, opium and the nitrate of silver, which may be given separately or together in a pill, doubtless in many cases are followed by much benefit. The powder or extract of opium may be given, or the acetate or hydrochlorate of morphia in small doses, and continued at regular intervals, whereby the functional activity of the organ becomes lessened. The hypodermic administration of morphia sometimes avails. The nitrate of silver doubtless acts in a manner similar to its ordinary effects when applied to more tangible and obvious places of ulceration. Indian hemp and the compound kino powder have by some been employed with success. Alum, tannic acid, and the acetate of lead are often serviceable. The subnitrate of bismuth I believe to be a valuable remedy in this affection; it should be ordered with mucilage, and as the patient progresses it may be combined with some bitter infusion, as those of calumba and gentian. While there is much pain, fomentations, cataplasms, sinapisms, turpentine stupes, and the external application of opium generally give ease, in addition to internal remedies. Perfect quiet and the horizontal position, with warm clothing and coverings, should at the same time be enjoined. The stomach may be kept warm with flannels and lint. When there is much sickness the carbonates of soda and potash with hydrocyanic acid I have generally found of service, or not infrequently a large opiate will allay this symptom. Ice may then be given. In hæmorrhage the most efficacious medicines are rhatany, sulphuric acid, gallic acid, turpentine, and the tincture of the perchloride of iron. In many cases the gallic acid is much to be depended upon, or if it should fail, half-drachm doses of the tincture of perchloride of iron may, during great urgency, be given in iced water every two or three hours; and I have sometimes known a large opiate succeed. I have been informed, but cannot speak from experience, that in such attacks of hæmorrhage as are uninfluenced by the more commonly employed agents large and repeated doses of neat brandy are not unlikely to be followed by its arrestment. When the loss of blood has been alarming, I have not hesitated to try a gutta-percha bag of ice applied to the epigastrium. In such cases, however, where there is extreme exsanguination, where the cardiac impulse is weak and fluttering and the pulse quick and feeble, with perhaps a syncopal tendency, caution in the mode of using cold is needed, for, if this were employed continuously and in excessive manner, its sedative effect might be such as to gravely subdue the heart's action. There are not, however, those objections to this way of applying ice which there are in hæmoptysis, and in cases of imminent peril it should be tried. Warm applications ought at the same time to be made to the feet and legs. In the event of that terrible occurrence, perforation, though we then feel that little or nothing can be done to avert the fatal issue, yet, as there is generally excessive pain, our endeavours should be exerted to mitigate suffering. A large bran poultice, which is not so heavy as linseed meal, may be placed on the abdomen; and the best mode of doing this is to put the bran into a flannel bag, and a teaspoonful of laudanum should be sprinkled upon it, and if a large piece of oil-silk or gutta-percha sheeting be carried fully beyond its edges it will keep warm much longer than otherwise, and thus save the patient from the discomfort of so much changing. Full doses of opium should at the same time be administered internally, if only with a view to a euthanasia. Such is the best and really the only efficacious method to give relief for the few hours which then life lasts. In all instances of gastric ulcer, it is a matter of importance that the bowels be kept in gentle but regular order, and the gastric membrane should be spared as much as possible, and any medicines which might irritate or induce sickness should be sedulously avoided. Enemata are the safest, and these may be merely of gruel or warm water, or, if needful, oil may be added. In many instances, more especially in cases of long standing, and those in which there has been hæmorrhage, some preparation of iron is needed, which may be conveniently combined with some bitter infusion; and if the heart's action be excited and irritable, digitalis may be conjoined with these.

Our therapeutic endeavours can only be successfully pursued by keeping in view these fundamental and pathologic changes which essentially signalise and mark the course of this complaint. From the want of certitude, which there is in the initiatory stages of the malady, and the analogy which subsists between the earlier cognisable symptoms and the symptoms incident to other forms of disease, prophylactic means can seldom be observed. When chlorosis and anæmia are the concomitants, to improve the blood, to alter and remove these conditions, and favour the process of general and normal nutrition, should be our aim; and not only should medicinal agents be judiciously administered, but dietetic rules should be very stringently enforced. To arrest the fermentative process of retained ingesta, to neutralise abnormal gastric acids, and to stay the solvent and peptic influence of such acids where necrotic changes have taken place, and where new granulations are forming, should be the intention of our remedies. The acids of the stomach should be fully neutralised at least once in twenty-four hours, and every day the contents of the organ should be emptied into the intestines. Such regular and systematic urging forward of the acid chyme would favour the conditions of granular reparation, and give a better chance of the ulcer healing. An aqueous solution of the carbonate of soda well answers the purpose, and this should be taken when the stomach is free from food, and when the saline is likely to come in fuller contact with all parts of the gastric surface. Ziemssen, Jaksch, Oppolzer, and Niemeyer recommend the Karlsbad waters or the Karlsbad salts, which can be artificially made. The spring to which they give the preference is the Sprudel, which analysis has shown to contain the sulphates of soda and potash, the chloride of sodium, and carbonate of lime, with small quantities of carbonate of soda, carbonate of iron, phosphate of alumina and silica. These authorities consider the Glauber salt as by far the most important agent in ulcer of the stomach. The first-named of the above-cited writers thus speaks in reference to this point:—"Glauber's salt is, according to my experience, the alkali which must be regarded as the most important in the therapeutical treatment of ulcer of the stomach, not only because it acts promptly and certainly in evacuating the contents of the stomach into the intestines, but because it at the same time positively checks or prevents the acid fermentation of those contents. In both respects the effect of common salt is similar to that of Glauber's salt, since it also has the property of restraining the fermentation and putrefaction, and at the same time exerts a gently stimulating effect upon the muscular coat of the stomach and intestines. The latter effect is, however, much weaker than that produced by Glauber's salt, and, in the majority of individuals, quite insufficient."* The sulphate of soda, carbonate of soda, and common salt are considered as the most active ingredients in these waters, and the artificial Karlsbad salts can conveniently and efficiently be prescribed when the patient cannot be sent to the springs. It is the opinion of the more recent writers on pathology that in gastric ulcer the ingesta are unduly retained in the viscus, and that the same slowness of the organ in passing forwards its contents obtains in gastric catarrh, and with gastric catarrh there is, as the rule, intense acidity. Under this perversion of peristaltic and secernent function, the hydro-carbonates, such as fat, saccharine compounds, rich pastry, beer, and other articles of food, readily produce the butyric, lactic, and acetic acids, which favour fermentation, arrest digestion, and give opportunity to solvent and peptic effects on the new granulations at the floor of the ulcer, which has become denuded of its

* Gelman: Clin. Med. Lectures, Syd. Soc., p. 61. 1876.

epithelial covering, and, consequently, is more liable to be injuriously operated upon by abnormal agents. And if these views be true, the use of these remedies can at once be comprehended.

With regard to food, it should be given at short intervals, and protracted periods of fasting should always be carefully avoided. With long intervals of abstention from nourishment there is the risk of too much being taken at one time. A patient labouring under this disease ought to have something between bed- and breakfast-time; and in more marked cases sustenance should be taken every three or four hours during the night as well as the day. Those light articles of diet should be given which are deemed the most nourishing and easily digested, and which are least likely to give rise to acidity and flatulence. And it is well to observe that the patient ought to keep as much as possible in the recumbent position. All such aliments as may be considered saccharine are to be interdicted, and it is scarcely needful to notice that solids should be strictly forbidden. A single meal of indigestible food might undo the progress made towards amendment of weeks or months, or cause the fatal accident perforation. Those who have seen most of this disease cannot do otherwise than concur in the opinion that rest and diet, rightly directed, are of more consideration than the kind of drugs to be prescribed. Several years ago I was much impressed with the truthfulness of this assertion. I then saw with Mr. Bishop of Tonbridge a young lady who had evidently long laboured under gastric ulceration. She had lost flesh and strength, and the stomach had become so intensely irritable that almost everything she took was at once ejected. The most bland and simple forms of nourishment could not be retained, and various medicines had had a full trial. It was decided that one tablespoonful of new milk and one tablespoonful of concentrated beef-tea should be given alternately every half hour. This small quantity of each was retained, the irritability of the organ gradually subsided, and the patient at length made a full recovery. Good milk is one of the best articles of diet which in this disease can be recommended. It does not sometimes agree, but often because too much is taken at one time. It may be mixed with a little cornflour, arrowroot, or biscuit-powder. In other instances it may be drunk with the addition of lime-water or Carrara-water. Various animal broths and soups, without vegetables, may be ordered, as good beef-tea, Liebig's meat-extract, and veal-and-ham and chicken broths. Jellies can also be given with advantage. Trommer's malt extract has by some been found of service. It is scarcely necessary to observe that broths and soups should never be taken hot, and ordinary tea and coffee had better be discontinued. When there is the hæmorrhagic tendency, all descriptions of drink and nourishment should be given cold or iced, and the observance of this rule I generally request for three or four days after the last appearance of blood. In the course of time, when there is evident declension of the more prominent symptoms, the amount of food may be cautiously increased, and the intervals of taking it may be lengthened. Then lightly-boiled eggs, thin toasted bread, well-boiled maccaroni, and farinaceous puddings may be ventured upon, or the patient should be impressed with the great necessity which there is for slow and perfect mastication. In regard to stimulants, small quantities of brandy and cold water, or a tablespoonful of whisky and cold water, may be allowed, or moderate amounts of sherry, marsala, burgundy, or claret, and these wines are quite preferable to effervescent and sparkling wines and bottled beer. When such a recommendation can, without inconvenience, be carried out, change of air and climate, by giving a healthy impulse to the system and re-establishing the general powers of the constitution, is most worthy of adoption, and it is worthy of mention to the patient that the waters of Karlsbad, Marienbad, and Tarasper are on the Continent held in considerable repute for their curative properties in this complaint.

Tunbridge Wells.

A severe epidemic of scarlet fever prevails in Pembroke Dock, South Wales. The wise measure of closing all the schools in the place has been adopted, which cannot fail to influence the duration of the disease. Up to the present time no fatal cases have been reported.

CASE OF SELF-INFLICTED PUNCTURED WOUND OF THE SPINE.

BY G. C. GRIBBON, M.B.,
SURGEON-MAJOR 28TH REGIMENT.

SERGEANT E——, aged thirty-two, of sixteen years' service, was brought to hospital on the 28th March, in a state of exhaustion due apparently to loss of blood from wounds, of which there was one superficial on the right side of neck, and the others were three punctures high up in the nuchal region. He was a small, spare man, married and with a family, of excellent character, and very abstemious habits. He had not been in hospital for many years. His wife stated that his health had not been good since he came to India, which was in November, 1875, six months before, and had latterly suffered from lowness of spirits and insomnia. He was found at 3.15 A.M. on the 28th March, lying on the ground bleeding slightly from the wounds already mentioned. He was cold, almost unconscious, and the quantity of blood on the ground about indicated considerable hæmorrhage. A penknife belonging to him was found close by, the small blade of which was open and smeared with blood, while its point was blunted and turned.

Shortly after being taken to hospital he began to emerge from his collapsed condition, and then manifested considerable nervous excitement; his eyes had a wild expression, pupils dilated. He was very silent, though restless; would answer yes or no correctly, but not readily. He made no allusion to his hurt. Pulse 80, weak. The wound in front was found to be of no importance. Being a left-handed man he had begun his attempt at self-destruction on the right side of his throat, but his nerve failing him, he had stabbed himself in the nucha. There were three separate punctures close together, and parallel, the largest, the only one of importance, being three-quarters of an inch in length, placed obliquely on the neck, and of such depth that a probe passed down impinged on the vertebra. There was some sanious oozing from it. Its edges were brought together with strapping, and to allay excitement and procure sleep twenty grains of chloral were given. Beef-tea and milk in small quantities.

March 29th. — Had thirty more grains of chloral yesterday, but without much effect, his sleep being short and disturbed. Neck swollen and stiff. Oozing continues from the wound. Complains of headache, and cramp and numbness of right hand, but his grasp is almost as firm with it as with the left. Wild in his looks still, but is quieter. Pulse 80, firmer. Given two scruples of compound jalap-powder. To have twenty grains of chloral at bedtime.

30th.—Spent a restless night, although fifteen additional grains of chloral were given. Neck paining him a good deal. Injected subcutaneously one quarter of a grain of morphia.

31st.—The injection acted excellently, as he slept soundly the greater part of yesterday and last night. Better generally. Oozing from wound considerable.

April 1st.—Slept well. The fluid oozing from the wound is no longer sanious, but clear. Neck only painful when he moves. Swelling gone down. Pulse 84. To have five grains of bromide of potassium in infusion of chiretta thrice daily, and one drachm of solution of morphia at night.

3rd.—Able to collect some of the fluid, which continues to come away copiously; it is limpid, of a pale-straw colour, specific gravity 1012, alkaline, and with a trace of albumen. Pulse 85. So weak that he requires help to move at all in bed. He is also remarkably chilly, keeping a blanket drawn over him, although the thermometer is about eighty, and he will not have the punkah pulled. He takes readily light nourishment, such as chicken broth, beef-tea, milk, calf's-foot jelly, &c.

5th.—Copious flow from wound. Pulse 85; temperature 98·4°. It is clear that the fluid must be cerebro-spinal, and that the knife must have penetrated the subarachnoidean space. Beyond the discharge there was little or nothing to denote such a serious lesion. There was simple nuchal stiffness, no pain, and the cramp and numbness in right

hand continued. No other part of body thus affected. Two marked and persistent symptoms were—dilatation of the pupils, though taking morphia every night, and great muscular prostration.

6th.—Much the same. Says he can feel "the water moving inside his head." Evening temperature 100·4°.

7th.—Dr. Cameron, whom I asked to see him, agreed with me that mercury should be given at once and fully. He was accordingly ordered two grains of calomel, with one of Dover's powder, every three hours, these to be seconded by inunctions.

8th.—Feels easy. Sweating profusely. Pulse 90; temperature 99°.—Evening: Pulse 103; temperature 99·6°.

From this time both pulse and temperature began to rise. The edges of the wound were carefully closed with strapping; but, notwithstanding, fluid continued to come away.

9th.—After a restless night, pulse 110; temperature 99°.—Evening: Pulse 115; temperature 100·2°.

10th.—Wound firmly plugged. Pulse 100, weak; temperature 100·2°.—Evening: Pulse 106; temperature 101·6°.

11th.—Slept well; feeling easy; pillow wet with discharge. Pulse 115; temperature 101°.—Evening: Pulse 120; temperature 102·6°.

12th.—One-quarter of a grain of morphia having been injected last night, he slept very well. Feels easy; no pain, only stiffness in neck. Bathed in sweat. Pulse 130; temperature 102°.—Evening: Pulse 132; temperature 101·6°.

13th.—Kept awake by a thunderstorm, and was occasionally delirious. Pulse 128; temperature 101·6°. Ptyalism being present, mercury to be discontinued. Treatment now confined to supplying him with all the lighter forms of nourishment. A little brandy to be given for the first time to-day with his beef-tea.—Evening: Pulse 125; temperature 101·4°. Observed now that the inspirations were only twelve a minute, and thoracic in quality, like a succession of long-drawn sighs.

14th.—Very weak. In a profuse sweat, and yet keeping blanket closely around him as if feeling chilly. Complains of no pain, and takes plenty of nourishment. Pulse tremulous, 126; temperature 100·6°.

15th.—Weaker. Inspirations 10, very prolonged. Pulse 132, temperature 101°. Asked if he felt pins and needles in feet; said he did. Discharge from wound scanty. In the evening the pulse was difficult to count. Temperature 102·6°.

16th.—Died very quietly at 5 A.M.

Autopsy, twelve hours after death. — Rigor mortis strongly marked. The spine was opened in the usual manner. The dura mater corresponding to the second and third cervical vertebræ was of a dark-red colour and softened. A probe introduced underneath at a point lower down, and passed upwards, emerged readily through an opening, which was ill defined in consequence of the disorganised condition of the membrane. The ligamenta subflava in this region were also highly vascular, and intimately attached to the dura mater by recent exudation. There was a small diffused clot in the cellular tissue outside the dura mater; it was confined to the left posterior half, and corresponded to the arch of the sixth cervical. The arachnoid in the upper cervical region was injected, especially the parietal layer; and its prolongations encasing the posterior roots were thick and opaque. The vessels of the cord were here numerous and large, but its substance appeared healthy. The inflammatory appearances described were limited to the cervical region, were most intense opposite the second and third vertebræ, and thence downwards gradually diminished, till, opposite the middle dorsal, the membranes looked perfectly healthy. There was no fluid in the subarachnoidean space. The cerebral veins and sinuses were engorged. Brain-substance appeared vascular, and hardly of natural firmness. Some fluid in the ventricles. Arachnoid over optic commissure thick and yellowish. Lungs anteriorly emphysematous; posteriorly engorged. Heart: right side flaccid, with a large clot, decolourised, and passing into the vessels; the left side was empty and very firmly contracted.

Remarks.—The first effects of throwing so vital a region as the spinal canal into communication with the atmosphere appeared to be the placing of the patient in a condition of shock, from which, it may be said, he never emerged. An initial part of this condition was the extreme muscular debility characterising the case from its outset. Another effect was the remarkable hypersecretion of cerebro-spinal fluid. This came away in varying quantity, its rate of flow being determined by whether the patient was restless or quiet. When the latter, there was only a gentle, hardly-perceptible oozing, but after any considerable change of posture such as to quicken the circulation, it welled out as from a spring. On one occasion, after it had been necessary to pass a probe into the wound, and he had been supported up while this was being done, it actually issued out *per saltum*, precisely as arterial blood would behave, and the movement was synchronous with the pulse. That the fluid bathing the canal's contents should be forced out by the expansion caused by each wave of blood from the heart proved that the subarachnoidean space was kept filled to overflowing, a condition necessary if the fluid were to continue fulfilling its presumed physiological function of deadening jars, &c., to the cord. And from this may be deduced the immense activity taken on by the secreting membrane, which continued for a fortnight, replacing a serious continuous loss. How much this was I can only estimate approximatively. One day when he was rather restless four drachms came away in less than an hour, the wound being not then plugged. Taking this latter circumstance into account I am certain that in placing the average daily loss at from *four to five* ounces I do not over-estimate; with a free exit, the quantity would have been much greater.

I regret that mercury was not given earlier in the case. It certainly did no good, probably from coming too late, as ptyalism and the significant slowing of respiration put in an appearance simultaneously, and this was just three days before death. The functional impairment of the phrenic indicated by the latter brought the case to a speedy close by coma, the thickened condition of the arachnoid encasing the upper cervical roots having probably something to do with this impairment. That this should have been the solitary well-marked neurosis resulting from the morbid conditions found to exist, appears to me remarkable. There is an important exception to this, however, as regards the condition of the cerebrum observed, which was one of softening; but I consider this to have been of a date long anterior to those produced by the wound, and to stand to the man's unsound mental state, as observed before the injury by his friends, and afterwards by myself, in the relation of cause to effect.

Fyzabad, Oudh.

EXOPHTHALMIC GOITRE.

BY HENRY DAY, M.D., F.R.C.P.,
PHYSICIAN TO THE STAFFORD COUNTY INFIRMARY.

(*Concluded from p. 423.*)

IN the course of my practice it has been either my good or bad fortune to have met with no less than five well-marked, I may say typical, cases of exophthalmic goitre, and in no two of these did the symptoms display themselves in exactly the same order. They were all females. As two of them have been of quite recent occurrence, and as, whilst affording good examples of the disease, they also serve as illustrations of some of the differences I have endeavoured to point out, I will venture to give a brief history of each.

CASE 1.—B. S——, aged twenty-two, a domestic servant, was admitted as an in-patient at the Stafford General Infirmary on Jan. 28th, 1876.

Family history.—Father and mother both alive, and enjoying good health. She has several brothers and sisters, and they are, and always have been, healthy. No evidence of any hereditary complaint whatever.

Previous history.—In the month of May last year, whilst feeling in every way in her usual health, she noticed that her eyes appeared more prominent than usual. This prominence kept gradually increasing, and a month or two afterwards she discovered a swelling on the right side of the neck, midway between the jaw and the collar bone. About the time she observed the swelling in the neck she began to be troubled with palpitations and shortness of breath; her menstruation also became both scanty and irregular; her appetite failed; she lost both flesh and strength, becoming tired and exhausted by the least exertion. All her sym-

ptoms gradually increased in severity, and she became an in-patient at the infirmary on the date already mentioned.

Condition on admission.—The first thing that attracted attention was the strange and enormous prominence of the eyes; these appeared as if being fairly pushed out of their sockets. The next feature observed was a very considerable swelling of the thyroid gland, the swelling being much greater on the right than on the left side of the neck, extending indeed from the right side right across the trachea to the left side, where it was not so large. On palpation the swelling communicated to the hand the impulse of the heart in a very marked degree, whilst at the same time a distinct "thrill" was felt. On auscultation over the swelling, there was heard a soft, but somewhat loud, prolonged murmur, as in cirsoid aneurism, synchronous with the first sound of the heart. Examining the chest, which, although fairly developed, was very thin as far as glandular structure and flesh were concerned, the impulse of the heart was seen to extend far beyond its natural limit. On percussion the area of dulness was found to be abnormally large, extending from about two inches to the right of the middle line of the sternum, across to a little beyond the spot for the apex beat; vertical dulness nearly three inches. On using the stethoscope a murmur was heard with the systole of the heart; this was heard both at the base and apex. At the base two distinct murmurs were made out, both accompanying the first sound: one (aortic) heard most distinctly at the junction of the second rib with the sternum, on the right; the other (pulmonic?) at the junction of the third rib with the sternum on the left side. The pulse was frequent, but variable as to its frequency, it was also at times intermittent, and much smaller than it might have been expected to be from the violent impulse of the heart. She complained of no pain, said her bowels were regular, but that she had not menstruated for some months previously. Temperature perfectly natural; urine natural; appetite uncertain. She said she had lost much flesh, and that she was easily fatigued. She did not admit that she had suffered from any emotional excitement either before her illness, or since it commenced. Her eyesight was in no way affected; objects either near or distant were seen with great clearness. An ophthalmoscopic examination did not discover any unnatural condition; the disc was particularly clear and distinct.

Treatment.—As she had an anæmic appearance, she had given to her small doses of iron, and, with the view of modifying and regulating the heart's action, tolerably large doses of digitalis were administered three times a day. The bowels, which were rather prone to be constipated, were kept regular with the aid of medicine. She was allowed a liberal diet, and, whenever the weather would admit of it, she took exercise in the open air.

During the time she was in the infirmary her general health improved considerably, but the prominent symptoms were but little, if any relieved. She was made an out-patient on March 3rd, 1876, and is now attending occasionally at the infirmary; the last day on which she was seen was Sept. 5th, 1876. The thyroid was then considerably smaller, the heart-disturbance less distressing, but the eyes seemed even more prominent than they were, and to give some idea of the extent of the protrusion, I may mention that whilst in the waiting-room she happened to rub the upper eyelid of the left eye, which, by this movement, got so far behind the greatest diameter of the eyeball that some difficulty was experienced in replacing it. She says that the prominence of the eyes now varies considerably from time to time. She does not look nearly so anæmic, is much stouter and more healthy in appearance. Menstruation has recommenced.

CASE 2.—E. W——, a married lady, in comfortable circumstances, became an invalid about six years since, being then thirty-three years old.

Family history.—No peculiarity or particular hereditary taint of any kind; the family, a large one, generally healthy.

Previous history.—Previous to the commencement of her illness had always, from childhood, enjoyed excellent health, being almost too stout. Had a particularly clear and florid complexion; in fact, seemed the embodiment of a strong and vigorous constitution. The first appearance of her illness dates from the period already mentioned. She at this time had had six living children and five miscarriages. Just before she began to feel out of health, and for some time afterwards, she had cause for much anxiety. Her illness set in with a sense of great debility and also with great loss of flesh; almost simultaneously with the feeling of weakness she suffered from constant palpitations. Then the eyes became gradually more prominent, and her eyesight, which for two or three years previously had become defective (myopia), and required the use of spectacles, became much worse. No appreciable enlargement took place in the thyroid gland, but vascular pulsations were perceptible. The pulse-rate was quick, as much as 135 in the minute, and occasionally it was intermittent. Compared with the strength of the heart-beat, it was weak and small. The area of cardiac dulness was much increased, and a soft murmur accompanied the systole.

Treatment.—No medicine was ordered, but she was recommended to leave home and children for a while, and to seek perfect rest and quiet. This she did by going to Scotland for five weeks. During this time all her symptoms, saving and excepting the "proptosis oculi," gradually left her. Her strength and flesh returned, and subsequently she has borne two children.

Present state.—She now appears in every way in good general health; her pulse-rate is normal, and so are the heart-sounds, but she says that now and then, even when quiet, her heart will beat rapidly, as if (to use her own word) she had been "startled." The eyes are now as prominent as they were when they reached their greatest point of prominence, and over the upper eyelid and eyebrow there is a peculiar blush of redness. No ophthalmoscopic examination has yet been made.

These cases are, I believe, fair examples of the disease, and they also display some of those differences as to the mode of attack, as well as the differences in the order in which these phenomena display themselves, which I have thought it necessary to notice. In one of my unrelated cases the *three* symptoms were occasionally, but especially at the monthly periods, subject to what may be called paroxysmal aggravations. The thyroid in this case was enormously large, and when the paroxysms referred to occurred, suffocation seemed sometimes to be imminent, but always subsided rapidly on an attack of epistaxis. Here the heart was unquestionably structurally affected. The other two cases got, I understand, perfectly well during a four months' residence in Switzerland.

Having related my cases, it may naturally be expected that I shall have something to say specially as to the treatment of this really extraordinary disease, but if I were prepared to offer any definite opinion or advice as to how such cases should be treated medically, I must, of course, base such opinion on a knowledge of the *cause* of the disorder. Here, then, occurs the very difficulty I mentioned in my preliminary remarks—a want of knowledge "*as to the effects of nerve function, and correlation of each special nerve-function on the purposes of nutrition.*"

What is the cause of this disease? I am afraid that at present the only safe reply that can be given is an *echo*, "WHAT IS THE CAUSE OF THIS DISEASE?" Begbie thought that it depended partly on the condition of the blood and partly on the condition of the nervous system, but principally on the condition of the blood.* My late friend Nunneley, of Leeds, thought it depended on an aneurismal state of the vessels within the cranium; and, when commenting on the frequency with which bronchocele exists in cases of protrusion of the eyes, he mentions his belief that the carotid should be tied, and says in six cases he performed the operation, and in five with a successful result.† Laycock considers the affection to be of cerebro-spinal origin.‡ Galezowski looks upon the condition as resulting from some lesion of the sympathetic, and mentions that Lancereaux and Peter found in one case hyperæmia and hypertrophy of the inferior cervical ganglion.§ Meyer believes that the sympathetic is affected, and gives four cases of this affection in females, and in all of them good results were obtained by *galvanising the sympathetic*.‖ MM. Fournier and Ollivier describe the case of a woman who died whilst suffering from the disease, and the most care-

* Edin. Med. Journal, Sept., 1863.
† Med. Chir. Transactions, vol. xlviii., p. 16.
‡ Edin. Med. Journal, vol. viii., p. 661.
§ Etude sur le Goître Exophthalmique, Gaz. des Hôp., 1871, p. 425.
‖ Berl. Klin. Woch., 1872, p. 403.

fully made autopsy failed to throw any light upon the cause of her malady. A most rigorous examination of the sympathetic was made, both with the naked eye and with the aid of the microscope, but it appeared to be in all respects *perfectly healthy*.* Trousseau sums up his opinion by saying he considers that exophthalmic goitre is the result of "a neurosis of the sympathetic."†

The weight of opinion, then, seems to lie in favour of the *cause* lying in some *pathological* condition of the sympathetic; but what the nature of—that is, the *precise* nature of—that pathological state may be, we have not, as yet, sufficient light to enable us to discern; it has, however, been made clear to demonstration that there need not be, of necessity, any absolute alteration of organic nerve structure for the development of the disorder, but, just as we are all aware that, through the aid of the sympathetic, and as the result of its *normal* function, local *natural congestions* may and do take place, so, *pathologically*, this system of nerves may effect congestions of an extraordinary and unnatural kind. From these considerations, I think some justification may be found for the belief that experimental research in the direction of the sympathetic, and the pathological influence exercised by it at times on the vaso-motor apparatus, would afford an ample reward to the industrious investigator by the discovery of the, at present, unknown cause of exophthalmic goitre.

During the time that B—— S—— (Case 1) was in the infirmary it so happened that I had the opportunity of showing the patient to Dr. B. W. Richardson, and he propounded a novel view as to the cause of exophthalmic goitre; but, as he informed me that he proposed putting this view before the profession ere very long, I cannot fairly do more than make this passing allusion to it.

Hitherto, then, the treatment of the disease has been very largely of an empirical character, and, as far as drugs are concerned, I think the general opinion of those who have had the management of such cases may be summed up as follows: Iron *may* be given, digitalis *should* be given, iodine *must not* be given.

With my own cases I have found that great quiet, freedom from excitement, a mild, plain, non-stimulating diet, attention to the digestive functions, and a residence in a pure and healthy atmosphere, have proved efficient auxiliaries (I dare not call them more) in promoting recovery; whilst I fancy—it may only be a fancy—that I have seen iron, but much more frequently digitalis, do some real service in modifying the heart symptoms, and, to this extent, contributing towards the cure.

* Union Médicale, 1868.
† Trousseau's Clin. Medicine (Syd. Soc. Trans.), vol. i., p. 578.

THE LOCAL TREATMENT OF PSORIASIS.

BY WYNDHAM COTTLE, M.A. OXON., F.R.C.S. ENG.,
SENIOR ASSISTANT SURGEON TO THE HOSPITAL FOR DISEASES OF THE SKIN, BLACKFRIARS.

THERE are a class of cases of psoriasis, namely those not uncommon examples where there is an excessive formation of dry scales, in many instances even producing the thick crusts with which observers of this complaint are familiar, and forming in chronic and neglected cases as long as they remain an insuperable obstacle to recovery. This condition is very common in congenital and inveterate cases, and when in the neighbourhood of the joints these crusts form hard shells, they preclude movement, or at least restrict it, and render it painful. It is to such cases as these that I have found the treatment I am about to suggest applicable. The consideration that a material improvement in the condition of parts might be expected to follow the hindrance of evaporation locally, led me to endeavour to procure such a result. After various trials I have found the subjoined method most advantageous.

All crusts and scales having been removed as far as possible, and the absence of grease being ensured by wiping the parts with ether or rectified spirit, and the skin thoroughly dried, the solution of india-rubber is thickly applied with a brush over the affected places, and this application renewed as often as is needful for the formation and maintenance of a continuous covering of india-rubber over the affected skin. The chief difficulty I encountered lay in procuring complete adhesion of this covering, and in this respect I found india-rubber much superior to gutta-percha or collodion flexile, &c. A very good solution has been supplied to the hospital by Messrs. Allen and Hanbury, of Plough-court, and which answers very fairly when carefully applied. Its composition is, india-rubber half an ounce, chloroform eleven ounces and a half. Solutions in ether were not found so suitable as those in chloroform, for, from their more speedy solidification by evaporation, some difficulty was experienced in their use, especially in the hands of patients.

I would claim for this mode of treatment that, in the majority of the class of cases mentioned, the recovery has been more rapid than with the ordinary local measures, and also very comfortable to the patient, free from the objectionable odour of the tar compounds; that its action is confined to the affected parts themselves, requiring no confinement of the patient, nor indeed causing any inconvenience to him; a further recommendation being its ease of application. At the same time I would guard against its being understood that I find this a local method of treatment to be indiscriminately used in this often somewhat intractable complaint, for the pathological conditions that call for the employment of some such remedy do not present themselves in the majority of cases; still I think it may be found a useful adjunct to the recognised treatment, and in a large percentage of appropriate instances give very good results. The mode of action of these coverings, that are impervious to moisture, seems to be that they prevent evaporation, and hinder the loss of the natural perspiration of the part. The result with which perhaps we are more concerned is that the affected skin, previously dry and harsh, and with its natural elasticity diminished, becomes supple, and almost moist, while the scales and crusts show little or no tendency to reform, any that may have been reproduced coming off with the india-rubber, leaving the skin almost normal beneath. After a time the deep red colour of the patches fades, there remaining eventually little more than the staining of the skin that always persists for some time.

This mode of treatment of course is not suited to cases in an acute stage, or in which excessive action is present. I have employed it in upwards of fifty cases, chiefly at the hospital, the details of which would occupy too great a space. I will, however, quote one typical instance.

A young woman, nineteen years of age, was admitted to the hospital on March 8th. She was of strumous appearance, but otherwise in fair health. Her affection had existed from childhood with varying degrees of intensity, sometimes leaving her almost free, but with ever-recurring exacerbations. On admission her condition was as follows. Irregular patches, averaging about an inch and a half in diameter, were scattered over the body, and more thickly on the outer aspect of the limbs, and especially about the elbows and knees, extending over the wrists and hands. These patches had a base of inflamed and thickened cutis, overlying and firmly adherent to which were hard and dry crusts, the results of hyperplastic action of the cuticular elements of the usual psoriasis type, in places exceeding the eighth of an inch in thickness, most abundantly developed around the elbows and knees. These crusts having been removed, to one side of the body and corresponding limbs the india-rubber solution was applied, while, to gain a comparative result, the other side was treated with mercurial and tar compounds. The affected places on the side to which the india-rubber solution was used at the end of three weeks became mere red markings, having lost in great measure their thickened bases, with but little tendency to the formation of scales remaining, while on the opposite side they continued to be produced, though with lessened activity, the inflammatory condition persisting. The india-rubber solution was then applied to the whole of the patches. She was discharged on May 3rd with only red stains to mark the former sites of the disease. The usual constitutional treatment was pursued.

In many of my other cases also one side or limb has in like manner been treated with these impermeable coverings, the corresponding parts receiving the more ordinary applications to allow of comparison of their actions.

The same local treatment is applicable also to some conditions of chronic eczema, but I have not as yet brought my experiments in that direction to a conclusion.

Savile-row, W.

A Mirror of HOSPITAL PRACTICE,

BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

POPLITEAL ANEURISM; APPLICATION OF ESMARCH'S BANDAGE FOR ONE HOUR, AND OF THE TOURNIQUET TEMPORARILY AFTERWARDS; RECOVERY.—REMARKS.

(Under the care of Mr. WAGSTAFFE.)

THE following notes were taken by Mr. Edmunds, house-surgeon, and Mr. Cockell, dresser.

R. W——, a barman, of good physique, aged thirty-two, was admitted September 1st. Between four and five months previously, when pushing a heavy cask, he felt "something snap" in his right leg at the back of the knee, and he suffered for the next three days from severe pain in this situation, but did not discontinue his work. He felt pain there afterwards on and off after a hard day's work. Two months prior to admission he first noticed "throbbing" at the back of the right knee, attended for the last month with swelling of the leg and "dragging pain" at the back of the leg and ankle; but he was able to continue his work until admitted.

On admission, there existed in the popliteal space a pulsating aneurismal tumour, two inches long, filling the upper half of the space, terminating opposite the junction of the femur with the tibia, together with considerable œdema of the leg.

On Sept. 2nd an Esmarch's bandage was applied tightly over the foot and leg up to the lower border of the popliteal space, carried lightly over the tumour (a thin layer of cotton-wool intervening), and then continued tightly over the thigh to within three inches and a half of Poupart's ligament, where the upper end of the bandage was fixed with pins. The elastic ligature was not used. This was completed at 2 P.M. The bandage was then left on for one hour, during which time the patient was very restless and complained of great pain. One-third of a grain of morphia was given subcutaneously. At 2.55 P.M. a tourniquet was placed on the femoral artery, and Esmarch's bandage was removed. A second tourniquet was placed in position, to be applied alternately with the first.—4 P.M.: No pulsation in tumour when the tourniquet was removed for a few moments. — 5.45 P.M.: Application of the tourniquet continued; no pulsation in tumour; leg slightly swollen; toes warm.—9.30 P.M.: Until this time complete pressure had been kept up by tourniquets, but some flow of blood was now permitted.

3rd.—8.45 A.M.: When all pressure was taken off, no pulsation was felt in the tumour. Tourniquet still applied lightly.—At 12 noon there was no pulsation in the tumour, but the artery on the inner condyle pulsated.—7 P.M.: Tourniquet loose; taken off. Aneurism cured.

On the 10th the aneurism remained only as a solid lump in the popliteal space, and over each condyle was a rather large artery pulsating very freely. The foot was not swollen, and the man was free from pain.

Remarks by Mr. WAGSTAFFE.—The value of the principle which Prof. Esmarch has been most active in utilising in his method of ensuring bloodless surgery has been recognised in England perhaps more fully than abroad; and one of the latest adaptations of it is in the treatment of aneurism. The only case in which I am aware of an attempt having been made to cure this disease by means of Esmarch's bandage is that of Dr. Walter Reid, reported in THE LANCET of September 25th, 1875; and in this case, which was one of popliteal aneurism, other means had been previously adopted: genuflexion for four days; complete compression of the artery for four hours, after which pulsation in the tumour ceased for a time; and then a number of attempts were made both by digital and instrumental compression before using Esmarch's bandage. So that, although there is no doubt that ultimately the complete emptying of the limb of blood by means of Esmarch's bandage allowed the aneurism to consolidate, still one cannot help feeling that the previous treatment may have materially assisted in the cure.

In the case here narrated the limb was emptied of blood for nearly an hour, the sac of the aneurism being left probably full, and then the main artery compressed by tourniquet for an hour longer, before the tumour was examined. At the end of that time no pulsation could be detected when the tourniquet was raised. Still it was thought advisable to continue the pressure, and this was probably nearly complete for the next five hours, after which it was maintained only imperfectly for twelve, and very slightly, if at all, for the next ten hours. The plan here adopted of leaving Esmarch's bandage compressing the whole limb, except the aneurism itself, for an hour, appears simpler and open to less objection than that adopted by Dr. Reid, of removing the bandage after encircling the upper part of the limb with the elastic ligature, inasmuch as it substitutes a universal for a local pressure; and doubtless, if it were thought advisable, the bandage might be left on longer, though it would be necessary to administer chloroform in that case, owing to the pain it produces. Many cases of necrosis remain under chloroform, with no blood admitted to the limb, a longer time than was occupied in the treatment of these two cases of aneurism—i.e., longer than an hour.

The treatment here adopted is undoubtedly more reliable than digital or instrumental pressure, but whether so successful in large thinly-coated aneurisms remains to be proved. The sac is presumably occupied by the clotting of the contained blood *en masse*, and not by a lamination from the wall inwards, and it remains to be seen whether this would ensure permanent obliteration in large aneurisms.

EAST LONDON CHILDREN'S HOSPITAL.

A CASE OF ENCEPHALOID KIDNEY.

(Under the care of Dr. MAGRATH.)

FOR the notes of the following case we are indebted to Dr. Ralph W. Leftwich:—

Albert S——, aged ten months, was admitted March 30th, 1876. He was said to have been perfectly healthy until the age of seven months, when a lump about the size of a large egg was felt in the left side of the abdomen. From that time the child was fretful, and for two months previous to admission had been getting thinner. The lump steadily increased in size in all directions, and was said to vary in consistence. It had never been tender. Six weeks before admission the child had measles, but recovered perfectly from the attack. He was weaned a fortnight before admission, and then had bilious vomiting for two days. The bowels had always been regular; there were no urinary symptoms. Father and mother fairly healthy; no miscarriage or stillbirth; five other children living, all healthy; one child died, aged sixteen months, of convulsions. No relation known to have had cancer. The mother, when advanced three months in her pregnancy with this boy, laid out a woman who died of abdominal tumour.

On admission the child appeared well nourished, had a clear complexion and red lips. A few enlarged glands were present in the neck. Chest healthy; abdomen prominent on the left side; no enlargement of superficial veins. A tense, elastic, non-fluctuating tumour, of irregularly rounded form, could be felt occupying chiefly the left half of the abdomen. It extended upwards beneath the false ribs, and backwards as far as the transverse processes. Traced forwards, it was superficial as far as the umbilicus, where it gradually receded from the surface, and was lost about four inches to the right of this point; the receding portion, except for about half an inch, was covered by the bowels.

Followed downwards, it was superficial as far as the level of the anterior superior iliac spine, but there it became deeper and was soon lost. No distinct edge could be felt anywhere. Surface not quite smooth. Tumour did not move with inspiration; on percussion it was everywhere dull. Dulness in left nipple line began at sixth rib, but was complete only at margin of false ribs; in mid-axillary line dulness was complete at tenth rib. No œdema of legs. Urine acid, of natural colour; albumen $\frac{1}{5}$; no blood, pus, casts, or "cancer cells." Blood showed a slight increase of white corpuscles—about one white to a hundred red. Pulse 120; respiration 52; temperature 99°.

On May 9th the child was found to have gained five ounces in weight since admission, and was not so fretful. The tumour had slightly increased; fluctuation was distinct over a limited area near centre of prominence. Seven ounces of greenish-brown, inodorous, turbid fluid were removed by aspirator—the last portion appearing to be almost pure blood. The fluid showed on microscopical examination numerous pus-cells in an advanced state of fatty degeneration, and a great number of red blood-corpuscles. No crystals, bacteria, hooklets, "cancer cells," or free fat-globules were seen. Treated with liquor potassæ it became gelatinous. Uric acid (murexide) and bile pigment tests were applied with negative results. The tumour, after the operation, was much more solid to the touch, especially at the upper and inner part, where there were a few fissures. A distinct interval was felt between its upper border and the false ribs. The upper surface was flat, and was rougher than elsewhere. At level of umbilicus there was some indistinct fluctuation.

June 2nd.—The last operation was followed by a rise in temperature for three days, but there was no abdominal tenderness. Tumour has now increased in all directions, and again dips beneath false ribs. Fluctuation very distinct. Eleven ounces of thick, brownish, inodorous fluid aspirated.

26th.—Child has gained one pound since admission, but his face is rather pinched and waxy-looking. Tumour has again increased, though not quite to the size it was before the last operation. Appetite good. Urine has been examined at frequent intervals, and has always contained a trace of albumen, but is otherwise normal.

July 4th.—For three days has had profuse diarrhœa, and now weighs a pound less than when admitted.

8th.—Died of asthenia. The wasting at last was very rapid, and diarrhœa persisted to the end.

Autopsy, thirty-six hours after death.—Body much emaciated. No rigor mortis. Heart pushed up; substance rather flabby; valves healthy. Lungs slightly œdematous; a little collapse of both bases. On opening abdomen the tumour was at once visible. It was of irregularly oval form, rather larger than the child's head, of membranous aspect, and, except at upper part, fluctuated freely. The descending colon was seen flattened against its anterior surface a little to right of middle line, and the peritoneum covering it was expanded over the whole tumour. The coils of small intestines lay exclusively in the right flank. The omentum rested on the upper surface of the tumour. On dissecting out the growth it was found connected by loose areolar tissue to the lumbar region, and was slightly adherent above to the spleen and omentum. The suprarenal capsule, rather flattened, but otherwise healthy, was attached to the posterior surface of the growth at about the junction of the upper with the middle third. The hilus of the kidney was replaced by a slight prominence. The ureter was somewhat twisted on its own axis, and was as thick as an adult's finger, except at each extremity, where it was of normal dimensions; it was dense to the touch, and contained some movable body. The tumour weighed 3½ lb. On cutting into it, about a pint and a half of grumous fluid escaped. Occupying about one-third of the cavity, and springing from its posterior aspect, were several large, highly vascular, cauliflower projections. A prolongation from a paler portion of the solid growth extended into the ureter for about one-third of its length, but was not adherent to it. No kidney structure was preceptible anywhere. The right kidney was about one-half larger than would be expected at that age, but was healthy on section. Spleen rather compressed, size normal; hilus directed downwards. Liver healthy. Mesenteric glands somewhat enlarged, but no cancerous glands anywhere. A section of the growth examined microscopically exhibited the characters of encephaloid cancer.

The clinical evidence did not admit of a positive diagnosis; but what proved to be the truth was considered most probable. The principal points which militated against this opinion were, the absence of wasting, the free fluctuation, and the non-discovery of the descending colon. The latter was, no doubt, covered by the coils of small intestine.

NOTTINGHAM AND MIDLAND EYE INFIRMARY.

CASE OF APPARENT DEATH FROM THE INHALATION OF BICHLORIDE OF METHYLENE, AND RESUSCITATION. REMARKS.

(Under the care of Dr. BELL TAYLOR.)

FOR the following notes we are indebted to Mr. Walter Beevor, clinical clerk.

C. S——, aged seventeen, a strong youth in good health, and, so far as could be ascertained, free from organic disease, was admitted on August 27th in order to have a lost and painful eyeball extirpated. A recent specimen of bichloride of methylene, prepared by Robbins and Co., of Oxford-street, was carefully administered with Dr. Junker's apparatus, and the patient gradually lapsed into insensibility in about eight minutes. The globe was extirpated in a few seconds, and the inhaling apparatus removed. At this moment the patient gave a feeble sigh, his head rolled on one side, and he ceased to breathe; the face was blanched, and no pulsation at the heart or carotids could be detected, nor could these be excited by flapping the epigastrium with a wet towel, pulling forward the tongue, or laying the patient on the left side. Dr. Bell Taylor therefore pushed the patient over the operating table, until his head was almost in contact with the floor, and in this position performed artificial respiration, while the tongue was held forward with forceps. At first no effect was perceptible, but in about five minutes a feeble sigh was heard, and faint pulsation could be detected. On listening at the chest the sigh was repeated, gradually became deeper, the heart's action returned, and the patient gradually recovered, unaware of his recent extreme peril, and was able to assist in restraining the patients who in turn required to be anæsthetised for operation.

Remarks by Dr. TAYLOR.—The great risk with bichloride of methylene, chloroform, ethylmethylene, and all allied compounds, is that they may induce fatal syncope or death, beginning at the heart. In this case the patient was threatened with death in this way. Now, it is well known that persons who faint are speedily restored if they lean forward so as to bring the head lower than the centre of circulation, or if they adopt the less convenient but equally effectual recumbent position. If, then, during the administration of any of these agents the pulse fails, the patient turns pale, and the respiration becomes faint and sighing, the head should be lowered, and the patient turned gently on the left side, and either the jaw elevated or the tongue pulled forward. If the breathing continues, it is well to wait and watch, and not to be in too great haste to resort to more violent measures. If, however, it is not enough to lower the head, the patient should be actually turned upside down, so as to secure, at any cost, a supply of blood to the brain. This method of treatment is known as Nélaton's, and it is stated that he was led to adopt it by a discovery made by a young relative who used to kill mice with chloroform and then bring them round by hanging them up by their tails.

That we may guard against accidents when administering anæsthetics some authorities recommend us to watch the respiration, others the pulse. Both should be watched. There is, however, one most important symptom which should be carefully noted—namely, any change of colour. If the face becomes ashy, dusky livid, much congested, blue or pale, the inhaler should be removed and care taken to ascertain the condition of the patient before proceeding further. If artificial respiration be performed hurriedly or excitedly, the small spark of life may be extinguished. The natural movements should be imitated, and full inflation of the chest secured, if possible, once every four seconds, or fifteen times a minute. If air does not pass readily the

chest may be filled by mouth to mouth insufflation, care being taken to press the larynx against the spine, in order to prevent air passing into the stomach; or the trachea may be opened and a tube inserted. The vital functions may be further roused by flapping the epigastrium with a wet towel, pouring very hot and then cold water on the exposed surface, tickling the nostrils, or applying nitrite of amyl or strong ammonia, both of which are powerful stimulants, and should always be at hand. Care should, however, be exercised in using the last of these, for it is recorded that death has resulted from œdema of the glottis and other injuries, caused by the injudicious application of strong ammonia as a stimulant to patients insensible and in *extremis* from chloroform inhalation. Should these means fail the phrenic nerve or heart may be roused by galvanism, and if there is reason to infer that the right side of that organ is paralysed from over-distension it may be relieved by opening the external jugular vein, while, as a cardiac stimulant, the subcutaneous injection of a solution of atropine is, according to Dr. Harley, most important.

I am in the habit of inducing profound anæsthesia, for the purpose of operating, on an average fifty times in a month for ten years. I use almost exclusively chloroform, with occasional recourse to bichloride of methylene, methylene ether, nitrous oxide, and olefiant gas, and during this time I had several cases that gave me great anxiety, but no actual death. When Dr. Joy Jeffries, of Boston, U.S., reintroduced ether as an anæsthetic into this country four years ago, I made a careful study of his method of administering that agent, and since then have employed it almost exclusively. Ether is a very safe but very disagreeable anæsthetic; it is offensive to both patient and operator, causes considerable excitement and congestion at the time of administration in almost all patients, and subsequent vomiting in about fifty per cent. of cases. It also excites excessive secretion from the bronchial tubes, and may, from the low temperature induced, cause bronchitis where there is a predisposition to that disease. I have never seen coma or apoplexy induced by it, although Mr. Jonathan Hutchinson once lost a case some days after administration from this cause. In general surgery these considerations are not sufficiently important to contra-indicate ether as an anæsthetic, but in ophthalmic practice it is very desirable to avoid excessive straining and vomiting; for instance, in cataract extraction, when the pupil is left entire, its shape is very apt to be spoiled by efforts which occasionally force out a piece of iris between the lips of the wound, and I was led to use bichloride of methylene in the case now under consideration because I found it stated on such good authority as that of Mr. Spencer Wells that it very seldom caused vomiting, and also because I was led to infer from some published observations of Dr. Richardson's, the discoverer of the agent, that when administered with Junker's apparatus it was practically a safe anæsthetic. The case above recorded is sufficient alone to refute the last assumption, while as to the former we were so unfortunate as to cause vomiting in three out of six patients to whom the bichloride was administered immediately before this one. The objectionable effects of ether are mitigated by administering it in conjunction with nitrous oxide. This may be done by using an ingenious apparatus devised by Mr. Clover, and sold by Mayer and Meltzer, of Great Portland-street, or by simply connecting the gas-tube with an ordinary inhaler, thus passing the nitrous oxide through a medium more or less saturated with ether. In this way the patient may be rapidly anæsthetised, and while he as rapidly recovers, vomiting is not so frequent or severe, and some of the objectionable features attending ether inhalation are removed.

INSUFFICIENT VENTILATION.—An important prosecution under the Public Health Act came off at Bolton last week. A house-agent was summoned under the Act for not causing premises of which he is the owner to be properly ventilated. It was found that the upper sashes of windows of houses on his property were fixtures, and that the air within the tenements on the occasion of the visit of the sanitary officers was foul from want of ventilation. An order was made by the bench that the windows be altered so as to afford sufficient ventilation within three days, under a penalty of £1 per day for non-compliance.

Reviews and Notices of Books.

Leçons de Clinique Chirurgicale, professées à l'Hôpital St. Louis pendant les années 1874 *et* 1875. Par M. le Dr. PÉAN. One Volume. Paris: Germer Baillière et Cie. 1876.

THIS large volume is the first instance of the issue by the French School of Surgery of anything resembling the hospital reports which are now so general in this country. It differs, however, in some respects from these, for it gives a complete *résumé* of the cases treated by one surgeon only, and contains also a selection from his clinical lectures, and an appendix (by two of his pupils) on the means that he adopts for restraining hæmorrhage during his operations. The uniform character of the book is thereby greatly increased, and in this particular case the interest is in no degree diminished. We doubt if any English surgeon's practice, in so short a period as seventeen months (namely, from 1st January, 1874, to 1st June, 1875), would yield such a valuable collection of cases; and the skill with which they are placed before the reader, and the nature of the comments on them, deserve every praise.

The first 179 pages are devoted to fifteen clinical lectures on various subjects, and take a very wide range, including such every-day affections as dislocations of the shoulder-joint and tumours of the breast, and such extremely rare ones as hemeralopia and cystic tumours of the axilla. As is usually the case with French writers, each lecture is a model of conciseness and perspicuity. The author conveys his meaning in as few words as possible, with every attention to clearness and precision; and as the practical features of the subjects are especially insisted on, and each lecture is accompanied with the details of the cases on which the author's remarks are founded, and so made truly clinical, they are good examples of the best style of clinical lecture. The English surgeon may open this part of the book at random, being sure of meeting with some well-explained novelty, either in the form of new instruments, new modes of treatment, or new procedures in diagnosis. When we recall to the memory of our readers that Dr. Péan is the only surgeon who has successfully removed the spleen, as we lately recorded in this journal, and that he is also well known as one of the best French surgical teachers, we shall have said enough to draw their attention to these valuable lectures.

Still more important and interesting is the second part of the volume. This is a complete statistical register of his cases during seventeen months, well arranged and classified, with some preliminary observations on each class, and afterwards a detailed account of the most noteworthy cases. The plan of arrangement is so clear, and the numerous details are so quickly and easily looked over, that we almost forget the mass of cases which are collected, and the great labour that their classification must have cost the author. We would strongly advise the registrars of our hospitals to look at his arrangement, as we feel quite assured of its superiority to the systems usually adopted by them. One example will sufficiently show this. Fractures of the femur, of which there are fourteen cases, are first discussed as a whole in three or four pages, then each case is described in parallel columns under the different heads of: Number of the case; name, age, and occupation; date of admission; date and nature of the accident producing the fracture; seat; variety; symptoms—(*a*) physical, (*b*) functional; complications; treatment—(*a*) of the complications, (*b*) of the fracture; duration of treatment; length of stay in hospital; condition of patient on being discharged; general observations. After the diseases of the bones have been summarised in this manner, we have forty

pages of the details of the most important cases, with annotations thereon, and with the results of the autopsies in those which were fatal. As other affections are as carefully arranged and worked out, this part of the work forms one of the most valuable records of cases that we are acquainted with, and the care with which the notes of every one of them, important and unimportant, must have been taken is very striking. We could only wish that more of our surgeons would follow in his footsteps, and insist on their pupils registering all their cases properly, and then take the trouble to make an abstract of them from time to time, and so present us with a bird's-eye view of their whole practice, and not merely pick a case here and there, however valuable and rare such may be. The statistics of Dr. Péan's operations have a chapter to themselves, and are of course of special interest just now when the after-treatment of cases is attracting so much attention on the part of surgeons. We find here a peculiarity of the author's practice in the employment of a special kind of forceps (which he calls the hæmostatic forceps), of differing sizes and curves, for the arrest of hæmorrhage both during and after operations, so that no ligatures are used, and the edges of the wounds are not brought together for some hours, or even days. An appendix of sixty-four pages fully describes his method as applied to different operations, and will well repay perusal. The wounds are afterwards dressed with cotton-wool, thoroughly steeped in alcohol, and frequently renewed. Dr. Péan does not appear to have tried the antiseptic method as understood by our best surgeons, and as his mortality from erysipelas and pyæmia is much higher than in those hospitals in this country and in Germany in which it is carried out, we would strongly recommend its adoption by him. Notoriously unhealthy as St. Louis is, we are quite sure that its careful and methodical employment will conduce to far better results than our author now lays before us. 122 major operations of different kinds were performed, with 100 cures and 22 deaths. Of 9 cases of amputation 5 were fatal, 4 of them (including the only amputation of the thigh, and 3 of the 4 amputations of the leg) dying from septicæmia.

We have left ourselves no space to criticise an appendix containing the startling number of 221 cases in which Dr. Péan has performed gastrotomy, in a period of fourteen months only, but we propose to return to this on some future occasion, and content ourselves in the meanwhile with drawing the attention of our readers to it.

Diseases of the Bladder, Prostate Gland, and Urethra. By FREDERICK JAMES GANT, F.R.C.S. London: J. and A. Churchill. 1876.

THIS book, the author informs his readers, is intended to replace a smaller work of his, entitled the "Irritable Bladder," which ran through three editions. The "revision" which that book has undergone to be transformed into this has been so extensive that but little of the original text remains, and yet the title-page tells us that this book is the "fourth edition of the 'Irritable Bladder,' revised and much enlarged." Mr. Gant has fallen in with the spirit of the times—he has pandered to the prevailing passion for big books, and the modest little work of former days is swallowed up in the present compendium. This may be due to the fact that in the interval between the third and this fourth edition the author has brought out a volume on the principles and practice of surgery. The transference of some of the chapters of that work, with due revision and extension, has greatly facilitated the process of transmutation. But our author has overstepped the proper limits even of a treatise on diseases of the bladder, prostate, and urethra. In spite of his disclaimer in the preface, he is nothing if he is not exhaustive, and so he has laden his work with matters not strictly surgical, but which tend to give to it an air of completeness. He devotes a hundred pages to the consideration of the urine and its constituents, and even goes so far as to treat the weary reader with brief sketches of jaundice, diabetes, albuminuria, and has been at the pains to tabulate all those affections in which excess or otherwise of the various substances in the urine is met with.

We do not wish to be too carping in our criticism, and it is a pleasure to point to other features of the book in which we can commend the author. The chapter on lithotomy is well written and sound in its practical details. In spite, however, of these and other redeeming features which it presents, it must be confessed that the necessity for such a work has yet to be explained.

On Internal Tumours: their Characteristics, Distinctions, and Diagnosis. By WALTER BALLS-HEADLEY, M.A., M.D. Melbourne: F. F. Baillière. 1876.

WITH every desire to welcome the labours of our colonial colleagues, it is disappointing to find so much good material as the author of this little book has had before him so inadequately dealt with. Indeed, so little is there within its pages of real scientific value that the reader might well ask why it came to be written at all. It is possible that the answer to this question is afforded in the remarkable simplicity of language which is met with in every page, and the studious avoidance of anything approaching to scientific phrase or diction, and which seems to indicate that the volume is intended for other than a small professional circle of readers. It may be, however, that this is merely the result of a pedantic style that shows itself in the headings of the chapters, where the genitive case is used, as in the old writers. Some of these chapters are notable for their brevity—e.g., that headed "Of Tumours of the Spleen" consists of six lines! The whole work is meagre, the only complete features about it being the exhaustive classification of abdominal and pelvic tumours and the well-ordered index. The author should aim at making the next edition as complete as this is incomplete; and, if he wished for a guide, let him study Dr. Bright's memoirs on the same subject.

OUR LIBRARY TABLE.

The Monthly Microscopical Journal. September 1st, 1876. No. XCIII. Edited by HENRY LAWSON. Hardwicke.—This number contains:—1. A New Process of Preparing and Staining Fresh Brain for Microscopic Examination, by Bevan Lewis. In this paper Mr. Lewis recommends that a section of the fresh brain should be made with a large knife, the upper surface of the blade being concave, and kept deluged with spirit. The sections should be placed on a glass slip with a few drops of Müller's fluid, and then covered with a cover-glass, which may be gently and evenly pressed down upon them. The superfluous fluid is removed by rinsing with water, and the slide is then immersed in a bath of methylated spirit. In about half a minute it is removed, the cover taken off, the specimen washed, and then stained by dropping on it a large drop of one per cent. solution of anilin black. The whole slide is now placed in a water-bath, and from thence removed to a bell-glass, under which is a small beaker of strong sulphuric acid, in order that the section may be dried and prepared for mounting in Canada balsam, which may be effected by dropping on it a solution of Canada balsam in chloroform. 2. On a Disease of Olive and Orange Trees, by W. G. Farlow, of Harvard University. This is a description of a peculiar black fungus which has done much damage to the above trees in California. 3. The Potato Fungus (Peronospora infestans), by Worthington G. Smith. This paper is illus-

trated by numerous woodcuts, showing all stages of growth of the plant. 4. The Affinity of the Mollusca and Molluscoida, by W. K. Brooks. 5. The Application of Photography to Micrometry, with special reference to the Micrometry of the Blood in Criminal Cases, by J. J. Woodward—a paper worthy of study by those who are devoting themselves to forensic medicine.

Journal of the Quekett Microscopical Club. No. 32. Sept. 1876. —The following are the contents of this number:—1. On the Principles of Illumination in connexion with Polarisation, by W. K. Bridgman. 2. On a New Method of Mounting Microscopical Objects, by Prof. H. L. Smith. 3. On a New Process of Histological Staining, by Dr. Frances Hoggan. 4. On Tubicolaria Najas, by James Fullagar. And, lastly, the President's address. Prof. Smith gives the following details of a successful mode of mounting objects requiring a cell of moderate depth and often the use of a fluid. He punches out of a sheet of wax (dark green or black) a disc a trifle larger than the brass curtain ring which is to constitute the wall of the cell. This disc is pressed by one surface to the centre of a glass slide, and slowly warmed till it melts, which, if well done, will not allow of the presence of any air-bubble beneath it. The whole cools with a smooth, somewhat dead surface. The ring is then pressed into this and centred by the turntable, and then again pressed fully down, showing the brass when looked at from the under side, and the whole finished with the usual "Brunswick black" outside, and also the ring inside. To attach the Foraminifera or other object, a minute drop of turpentine is applied to the wax, and in a minute or so, before it is quite dry, the object is placed on the softened wax; when thoroughly dry it will be found so strongly attached that a violent blow or a fall will not dislodge it.

The Sun, Ruler of the Planetary System. By RICHARD A. PROCTOR. Third Edition. London: Longmans, Green, and Co.—The fact that such a book as the present should have reached a third edition says much for the growing taste for works of an educational character among the reading public. It is perhaps the most interesting of the series of publications issued by Mr. Proctor, which include "Other Worlds than Ours," "Saturn and his System," "Light Science for Leisure Hours," &c. The new edition appears to have been carefully revised, and some important sections have been added to it. The appendix on Transits of Venus has wisely been removed, the purpose for which the essay was written having been accomplished. The reader has placed before him all that is known, or what may be surmised, of the great ruling luminary of our system: the discoveries that have been effected by means of the telescope, the spectroscope, polariscopic analysis, and photography. There are treated very fully the questions of the Sun's distance, his influence as ruler over the system of planets, his physical condition, and his place and motions among his fellow suns; while reasons are presented for considering that the most important work science has to accomplish is to show how the Sun's action can be more fully utilised than it is at present. We should not omit to state that the book is enriched with nine lithographic plates (seven coloured) and one hundred drawings on wood.

The Poppy Plague. By J. F. B. TINLING, B.A. London: Elliot Stock.—The opium traffic is a subject that will soon have to be grappled by the Imperial Parliament, presenting, as it does, not only a moral and commercial aspect, but also a well-marked political one. It may safely be predicted that when it is taken in hand it will give rise to much difficulty, and the most conflicting expressions of opinion and of evidence. With the space at our disposal we cannot do more than briefly refer to the principal points treated by Mr. Tinling, which are: The Characters and Effects of Opium; Range of Opium and the Opium Habit; History of British Opium (exhaustively dealt with); Review of British Opium Policy, together with what the author proposes in the way of a reform. In view of the great interests connected with the trade he suggests that a conference, at which the representatives of America, Prussia, and Turkey would be present, should be invited to settle the matter. Such a conference, he thinks, would be able to effect an arrangement by which "the dishonour of England and the bane of China" would together be torn away, and immense commercial advantages secured to both nations.

REPORT
OF
The Lancet Commission
ON THE
SANITARY CONDITION OF BOULOGNE.

THE number of English families who select a foreign watering-place for their autumn holiday, in preference to an English one, is already so great, and is increasing so fast, that some inquiry into the sanitary condition of the more fashionable of these watering places has become desirable. We have selected Boulogne on the present occasion as being proverbially "the most English town out of England," and therefore allowing of the simplest comparison with our own seaside health-resorts. There are about four thousand English residents in the town; from six to eight thousand English visit it every year, and the number of French visitors is said to be now nearly as great. The importance of knowing its sanitary condition is therefore abundantly evident.

At the time of the census in April, 1872, the population of Boulogne was 39,700. To simplify calculation we may take it at 40,000. Of this number a large proportion consists of persons engaged in fishing, trade, and manufactures. In 1872 no less than 3556 persons were returned as efficient sailors, and the number of boats engaged in fishing was close upon 200. The manufactures of the town are somewhat important. There are, for example, four weaving and spinning factories, five foundries, three manufactories of hardware, two of shoes, one of fishing-nets, three of cement, and two marble-cutting yards.

The mortality of the town requires a somewhat careful study. We are informed that the average death-rate for the last ten years has been 22·5 per 1000. This estimate excludes very properly the years of the war, and also the year of cholera epidemic. Unless, however, the population had increased at a very unusual rate, the death-rate in 1874 and 1875 was considerably above this average, without apparent reason. The following statistics, copied from the "Actes et Recueils de la Mairie de Boulogne," will show this. We regret that we cannot give the figures for 1873.

	Total deaths.	Under 1 year.	Under 5 years.
1870 ...	1230	281	521
1871 ...	1370	321	629
1872 ...	851	208	308
1873 ...	—	—	—
1874 ...	1026	253	527
1875 ...	1073	243	393

The excess of births over deaths in 1875 was 276, and we therefore think the total increase of population may fairly be assumed to be not greater than 1000 per annum, a common rate of increase in thriving towns. This would give a death-rate for 1874 and 1875 of about 24 per 1000.

Now it cannot be doubted that, even taking the official

estimate, this mortality is much higher than it should be in a seaside town so singularly favoured by nature as Boulogne. It is true that many "extenuating circumstances" may be alleged, some of which have real weight. The more influential residents, the medical men and the local authorities, with whom we discussed the question, were prolific in their excuses and explanations. We have considered these explanations most carefully, and can only regret that, after making all proper allowances, we are still compelled to hold that the death-rate of the town is higher than it should be.

In the first place it is urged that Boulogne is not solely a watering-place, but to a great extent a manufacturing town, that it includes a great many poor, and that the death-rate is increased by the hospitals. All this is undoubtedly true, and it would be obviously unfair to compare the death-rate of such a town with that of an English health resort, where factories are almost unknown. But it is surely not unfair to compare it with that of London, with its gigantic manufactories, its wide-spread pauperism and distress, and its endless hospitals. That the death-rate in Boulogne should be about as high as in London, where green fields are things to read about, and where no fresh sea breezes bring purity to the atmosphere and strength to the population, is a fact that cannot be explained away.

Of equal or even greater gravity is the question of infant mortality. It is argued that the number of children who die is out of proportion with the mortality of the older persons, and that this is due to the absence of proper care and food. The high death-rate is, it is urged, therefore, the result of bad nursing rather than the insalubrious condition of the town. Mothers cannot afford, for instance, to remain at home to nurse their children. These are left at some neighbouring *crèche*, where they are fed from the bottle while the mother works in a factory, at fish-curing, or as a charwoman. Among the fishing population the greatest ignorance prevails; 30 per cent. can neither read nor sign their names. Superstitions and prejudices obtain an easy hold on such ignorant mothers. Customs are in use which are totally opposed to medical science, and which help to accelerate the death of infants. Injudicious feeding and inadequate care are combined with that ignorance of disease which leads to the neglect of the earlier symptoms, so that when the doctor is finally called it is often too late. All these causes increase the mortality of children among the poorer sections of the native population, but need not, it is suggested, affect the condition of visitors and their children. The immorality of the lower class of women also tends to increase the infant death-rate. Very many of them are mothers before they are twenty. In 1875, out of 1349 children born, 191, or 14 per cent., were illegitimate, and such unfortunates are notoriously ill-cared for.

Now all this is perfectly true, and abundantly accounts for the high infant mortality shown in the table we have given. It will be seen that the proportion of deaths under one year is pretty uniform in all the years given. It ranges from 22·6 per cent. in 1875 to 24·6 per cent. in 1874 of the total deaths, and the average is 23·6 per cent. In England the proportion is about 15 per cent., so that the effect of the various circumstances detailed above can be estimated pretty closely. On calculation, we find that if the proportion of infant deaths were the same in Boulogne as in England, it would reduce the death-rate by about 2·3 per 1000. This is a very important correction, but even when added to all other sources of exceptional mortality, it is not by any means sufficient, in our opinion, to bring the death-rate down to a satisfactory level. The truth is that the sanitary condition of the town is so thoroughly and disgracefully bad that it is only a wonder that the death-rate is not much higher; it certainly would be but for the remarkable advantages conferred by nature.

In the first place, the water-supply is extremely imperfect. Only eighteen litres (about four gallons) per head are allowed per diem, and all kinds of restrictions are found necessary. Thus, in the preamble to a decree issued at the mairie on June 2nd, 1875, it is stated that, "considering that the dearth of water is manifest in certain quarters of the town, the administration is compelled to prescribe immediately measures of prudence." Accordingly, it is enacted that no washerwoman, brewer, or manufacturer may use for trade purposes the water supplied by the town during the months of June, July, August, September, and October. During those months no inhabitant is allowed more water than is strictly necessary for domestic purposes.

The result is what might have been expected. There are many houses, and some in the best quarters, where the closets are insufficiently, if ever, cleansed. There is no water to spare for such purposes, and the stench is consequently dangerous and disagreeable. This evil might of course be remedied, if the inhabitants had sufficient knowledge of sanitary matters, by the employment of disinfectants, &c., but the science of sanitation is almost unknown to the French public. The closets for the most part communicate with cesspools which are emptied at certain intervals, their contents being taken some distance out of town, and sold as manure. Many years ago, however, some persons obtained, as a special privilege, the permission to put their closets into communication with drains which had been constructed for the purpose of carrying away the comparatively clean water that fell into them from the gutters. These drains empty into the port, and were never intended to be used as sewers, but the privilege of so using them having been granted to one person, it was soon extended. Others also who had not obtained any special permission made bold to imitate their more privileged neighbours, and the authorities found it difficult, if not impossible, to check the one without the other. The evil, therefore, increased, and the drains were rapidly converted into sewers. This accounts for the constant bad emanations and smells which poison the atmosphere in the neighbourhood of the port at low-tide, and from the sewer-gas which escapes from the drains and forces its way up into the streets and houses. What falls into the port is washed by the tide twice a day, and is exposed when the tide is out to the putrefying action of the open air, the sun, and the wind. Dr. J. S. S. Harvey, indeed, assured us that during all his experience he never knew any of the crew of the South-Eastern steam-packets affected by these odours. These steamers have, nevertheless, been moored night after night, for many years, over the precise spot where the drains fall into the harbour. The stench has been so powerful that it has discoloured the paint of the steamers, and yet, though the crews always sleep on board, they have apparently been none the worse for their sojourn in this slough of filth. The counteracting influence of the wind and open air has saved Boulogne in many other respects besides this.

In the fishing-town and in poorer quarters the drains are not contaminated, for the simple reason that the inhabitants dispense altogether with the use of closets. They simply employ ordinary vases, and empty them into the streets in front of their doors! This barbaric mode of proceeding has, however, been made the subject of considerable local legislation, with a view of mitigating its evils. Thus, a decree, issued on August 16th, 1871, reviving an old regulation, orders that fæcal matter, urine, and other corruptible substances must be kept within the house till the moment when the scavengers and street-sweepers begin their rounds. The preservation of such materials for twenty-four hours within a crowded house, with perhaps four or five people living in one room, is, it seems to us, more dangerous than exposing them to the free action of the sea breezes that sweep the streets; but this measure has the advantage of saving external appearances, a consideration of great importance in a town visited by so many pleasure-seekers. When, finally, the moment has arrived when the household refuse may be thrown away, another clause in the regulations orders that it must be kept away from the gutter, and placed at a distance of at least two yards from the openings into the drains. These quarters of the town do not therefore help to corrupt the drains and poison the port. The inhabitants here are content with poisoning themselves, and with spreading the diseases which result to other districts of the town. To this we should add that when a disease, such as scarlet fever, breaks out, no measures whatever are taken to prevent its propagation. A little chloride of lime, or even a little carbolic acid, may be occasionally thrown about on the floor, particularly after death; but as for any genuine disinfection, the process, and the necessity of its application, seem about equally ignored. Last year scores of visitors must have slept and lived in the same rooms which had been occupied, perhaps but a few days previously, by scarlet fever patients, and no measure worthy of the name had been taken to prevent their catching the malady. The rooms are not fumigated, the walls are not

repapered, nor is there such a thing in existence as an oven where clothes &c. may be disinfected by exposure to heat.

That this neglect of the most essential sanitary precautions does not arise from any mistaken ideas about the liberty of the subject will be understood by all who know France. The orders which are issued are often arbitrary enough. For instance, a decree dated October 8th, 1860, ordains that "pigs, goats, rabbits, guinea-pigs, ducks, pigeons, cocks and hens, and other poultry, are condemned as injurious to the public health, and cannot be kept alive within the town without special authority." So that the householder who is permitted to let a fever den to an unfortunate family of visitors is not at liberty to keep a few fowls in his back yard!

We are glad to note that some steps towards reform have at last been taken. A decree issued on February 25th, 1875, orders that in future heavy oil of coal-tar (valuable, of course, for its carbolic and cresylic acids) shall be added, in a fixed proportion, to every cesspool before it is emptied. The same disinfectant is now also often poured into the openings which communicate with the drains.

The sanitary condition of Boulogne has, we need scarcely observe, been a matter of grave concern to all persons interested in the welfare of the town, and there have been many projects to supply the first of all necessities—water. A project, prepared by a young engineer, who had distinguished himself in several towns of France and Algeria, had been adopted by the municipality before the war. It suggested the bringing of water from a source at Echinghen, situated at a distance of about twelve kilometres from Boulogne, and would have cost about £28,000. After the war a new and Republican municipality was elected, and instead of carrying out the old project, or submitting the matter to the competition of civil engineers, they placed it in the hands of the Ponts et Chaussées. Unfortunately the gentlemen belonging to this administration are not renowned for the celerity with which they dispatch their business. Promptitude brings them no extra benefit. They receive regular salaries, and have no competition to stimulate them. Thus a new project, which should have been completed in a year, has only just been hatched. It is now proposed to bring water from a distance of twenty kilometres at a cost of £48,000, but it is further proposed, for an additional outlay of £32,000, to construct a complete system of sewage. This will consist of a main sewer, running along from the river Liane to the end of the port. As the town slants down to the water tributary sewers will bring the whole town into easy communication with this main channel, and reservoirs of water collected from the Liane at high tide will be discharged into the sewer at low tide, so as to wash it out thoroughly twice a day. The opening of the main sewer will, in all probability, be situated between the two piers, where it will always be covered with water, and where sea currents will, it is stated, carry all the sewage away. If this plan proves as successful as it is anticipated, when Boulogne has an adequate supply of water, and when the French Assembly finds time between its faction fights to pass a Public Health Act, the town will merit the popularity which its natural beauty and salubrity deserve, and which it has prematurely acquired.

THE STERNO-CLEIDO-MASTOID MUSCLE.

AN interesting paper on this muscle appeared lately in the *Centralblatt*, from the pen of W. Krause, the Göttingen Professor of Anatomy. Its attachments and relations, he observes, are usually considered to be quite certainly made out; yet certain facts in comparative anatomy, as well as its perforation and supply by the nervus accessorius, tend to throw some doubt as to whether it is fully understood. Surgeons may remember to have read that a case of wry-neck occurred under the care of Stromeyer in 1838, in which the cure was not effected by a tenotomy of this muscle, in consequence of the presence of a variety—namely, a cleido-mastoideus secundus. On careful comparison of the great anatomical treatises, it will be found that they may be divided into two groups. In one—commencing with Albinus in 1734, and including D. C. Mayer, 1784; Loder, 1788; Hildebrandt, 1799; Soemmering, 1791; J. F. Meckel, 1816; E. H. Weber, 1839; Theile, 1841; F. Arnold, 1844; Henle, 1858; Hollstein, 1860; Eckhard, 1862; Luschka, 1862; Sappey, 1869; Quain, Hofmann, 1870; Cruveilhier, 1871; Heitzmann, 1875—the insertion of the sterno-mastoid is given into the superior semicircular line of the occipital bone as well as into the mastoid process. Whilst in the other—including Monro, iii., 1825; C. Krause, 1833; Hyrtl, 1846, 1859; H. Meyer, 1861; Aeby, 1871; and others—the muscle is regarded as being exclusively attached to the mastoid process. Langer, 1865, took up an intermediate position, regarding the insertion into the linea semicircularis as a variety. He stated also that it was the clavicular head or cleido-mastoid that was attached to the semicircular line: whilst Albinus, 1734; Meckel, 1816; and probably also Heitzmann, 1875, attributed this insertion to the sternal portion, or sterno-mastoid muscle.

The sterno-cleido-mastoid is, Professor Krause believes, a complex body composed of four muscles, with the following origins and insertions:—

1. Portio sterno-mastoidea, which arises from the upper border of the sternum, and is inserted into the border of the processus mastoideus and the adjoining part of the temporal bone. This is the strongest part of the muscle, and has a thin tendinous attachment, the apex of which is directed downwards.

2. Portio sterno-occipitalis arises immediately to the outside of the foregoing portion. It is thin, superficially placed, joins, as it ascends, with the third portion, and is inserted into the outer extremity of the linea semicircularis oss. occipitis extending as far as to the insertion of the portio sterno-mastoidea.

3. Portio cleido-occipitalis, belonging to the hitherto so-called caput claviculare. This arises from the clavicle externally to the triangular split which separates the two main portions of the whole muscle. This portion of the muscle is broader or more slender, as a rule, in inverse proportion to the degree of development of the portio sterno-occipitalis, and is usually broader than the latter. It is superficially placed, and as it ascends joins with the last-named segment, and is inserted into the linea semicircularis on its inner side, occupying the part between the lateral and middle third of that line.

4. Portio cleido-mastoid is the next strongest to the sterno-mastoid portion, arises by a broad attachment from the clavicle immediately behind the portio cleido-occipitalis, is concealed behind the portio sterno-mastoidea, and is thus the most deeply-placed part; is interpenetrated by some tendinous striæ, and is inserted beneath the sterno-mastoid portion into the apex of the mastoid process.

The accessory nerve perforates the portio cleido-mastoidea or passes between this and the portio sterno-mastoidea, runs between the portio cleido-occipitalis and cleido-mastoidea, and emerges between the two latter. All parts of the muscle, even the portio sterno-occipitalis, receive branches from the nerve.

In mammals sometimes one, sometimes another, part of the muscle is absent. Thus the badger only possesses the sterno-mastoid and cleido-occipitalis, whilst the marten has the sterno-occipital and the cleido-mastoid, and the hare the sterno-mastoid and cleido-mastoid. The ordinary varieties in man are readily explained by the isolation or absence of particular parts, or by the extension of the cleido-occipitalis to the external occipital protuberance. Both the cleido-occipitalis and the sterno-occipital may be very feebly developed, and both may be absent, as, indeed, may also the sterno-mastoid. Or it may happen that the cleido-occipital or the cleido-mastoid may be independently developed. If the cleido-occipitalis extends very far laterally it acquires a surgical interest.

In the following scheme s x represents the portio sterno-mastoid; s o the sterno-occipitalis arising at s, and inserted between o and x; c o the cleido-occipitalis; c x the cleido-mastoid, which is more deeply placed. The four portions of the muscles, instead of having eight points of attachment, have only five, for the cleido-mastoid and cleido-occipital are attached above together, the cleido-mastoid and sterno-mastoid below. Krause observes that if the muscle were named after its attachments it should be called the sterno-cleido-mastoideo-occipitalis, or, better, the musculus quadrigeminus capitis.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 30, 1876.

THE Church is directly represented by distinguished clerics in the Upper House of Parliament, while enthusiastic laymen watch over its relations with the State in the Lower. Law has official and personal recognition in both chambers, and its concerns are keenly cared for. The Army and Navy have members honoured with peerages for their services, official representatives, and members returned to the House of Commons, where they act as spokesmen, in and out of season, for their order and its interests. Medicine alone has no place in Parliament, is officially unknown to the Legislature, and systematically neglected. The minister who shall first put an end to the not very creditable circumstance that no member of the medical profession has ever been raised to the peerage will perform a sensible act, and deserve well of a large section of the community. Probably no statesman would deny that the claim of the medical profession to the highest honours is a strong one. Both on account of its direct services, its collateral contributions to the public good, and the influence such knowledge as medical men alone possess must exert upon the principal departments of socio-political legislation, Medicine may urge a fair suit for State recognition. Nothing but the blindest prejudice—a prejudice unworthy of enlightened ministers—can have so long stayed the hand of the Sovereign, and prevented the elevation of some distinguished members of our order to a seat in the house which Lord SALISBURY once told the country was chiefly valuable because it represented success in *all* lines of public usefulness, from commerce to statesmanship.

In part, perhaps, the extraordinary neglect with which the profession is treated may be accounted for by the remarkable—may we be permitted to add, the mistaken—reticence of medical men. It is a fact which possibly has not yet forced itself upon the attention of ministers, that the profession as a whole is aggrieved by the fashion in which its leading members are treated. An occasional C.B. doled out to a pioneer of science, the less valuable because bestowed side by side with a like distinction given in reward of mere routine service; with here and there a baronetcy, conferred apparently in recognition of great achievements, or the recovery of some member of the Royal family under the treatment of the *beneficiare*, indifferently; much as a huge joint of beef was created baron, and the lesser cut knighted! Such is the beggarly array of rewards a grateful country, represented by intelligent ministers, is content to offer in recognition of services which concern the life and health of the people, services ceaselessly and devotedly performed although so scantily appreciated. It is time the profession spoke with a united voice on this topic, and gave expression to the feeling which beyond question prevails throughout the entire body. It is, also, time that those prominent men who, from an acute sense of delicacy or personal reluctance, omit to put in their claim to honours, or even neglect, and affect to despise, them, should be reminded that in this matter it is a duty they owe the profession of which they are leaders not to throw new obstacles in the way of its advancement. There is no doubt a dignity in disclaimer and refusal; but the practice of self-abnegation may be pushed too far, and when it is practised in the face of traditional neglect, it ceases to be dignified, and becomes indefensible.

We have selected the present moment for these general remarks because there is just now an opportunity of taking at least a preliminary step, with a view to the public advancement of Medicine. The vacancy created in the conjoined representation of the Universities of Aberdeen and Glasgow, by the elevation of Mr. GORDON to the Bench, offers a chance of returning an energetic member of the medical profession to Parliament, and it will be an unpardonable omission if it is allowed to slip. It is not a merely respectable representative we want. The man who is returned should have a claim on the attention of the House of Commons, and be competent to make his influence felt. If the constituency is wise, it will select such a person without regard to the accident of his being a member of one of the two universities associated. These bodies will confer incomparably greater honour on themselves by leading the van of progress in this matter, and helping to claim a place and a hearing for Medicine, than the barren distinction of seating an alumnus who may be eminently respectable, but the possessor of a golden faculty of silence, or that sort of self-consciousness which impels to reserve when professional interests are concerned. We refrain from pointing to any particular member of the profession as endowed with special qualifications for the *office*—for such it is,—because we think a constituency ought not to be embarrassed by suggestions in the discharge of a function so important, so critical, as that which now engages the attention of the Universities of Aberdeen and Glasgow. We would only express an earnest hope that the full scope of the opportunity may not be disregarded. There are considerations involved which must altogether cast party interests into the shade. The university franchise was created for a special purpose. The speeches of the late Earl of DERBY and the present Earl of BEACONSFIELD were especially clear on that point. A university has little to do with the question of confidence in a particular Ministry. The obligation is to assert for science a right to an active share in the work of legislation. The interests of the country and the profession are identical on this point, and they impose on the constituency of these universities the obvious duty of selecting a man who will not only enter the House of Commons as a member of the medical craft, but, when there, perform the *almost* unprecedented feat of sustaining the character and playing the *rôle*.

We speak strongly because we feel acutely the disadvantage at which the profession is placed. It is a most unfortunate circumstance that the voice of Medicine has not been heard in the councils of the State for many years. There is much to be said besides that which relates to professional matters, though this topic should not be neglected. The growing importance of preventive medicine alone demands a representative. Sanitary science should be expounded by professional men, not left at the

mercy of amateurs. Scarcely one of the more practical questions of the day in relation to local government and general law-making can be decided without the assistance of the profession which is at this moment practically without a representative. We repeat, it is not a silent member we want, or a mere talker, however respectable. It is surely not a fact that this profession, with its vast enterprise and profound research, has not a man in its ranks who would be able to assume and sustain the part of an able and eloquent expositor. Such a man should be found and returned in the interests of a science sadly lacking in practical demonstrativeness and a profession unaccountably neglected.

THERE are few departments of general practice more important than the obstetric department. On the extent of it, on the proportion of first labours, on the preservation of the physiological character of the cases, depends, in a large degree, the enjoyment of life and of professional work. Some practitioners have very much more endurance in regard to this kind of work than others. To be called out of bed four or five nights in the week does not apparently diminish their energy or affect their power to live "laborious days." But it may be confidently stated that such cases are exceptional, and that few men are justified in accepting engagements which involve such an invasion of the hours of rest. It is obvious that the power of men to do midwifery work varies exceedingly. There is something in the nature of the work which is very trying to certain persons. Its uncertainty, its irregularity, the atmosphere of the lying-in chamber, witnessing suffering which medicine can only partially modify or assuage, are all circumstances which tell heavily and depressingly on persons of a certain constitution. Sir ROBERT CHRISTISON not long ago, in the Medical Council, said that he saw many medical men in Scotland who lost their health by doing midwifery work. These things being so, it is clearly wise in every practitioner to apportion the amount of midwifery which he undertakes to his strength, and to accept only such a number of engagements as will permit the restoration of his functions by sleep. The problem is not how many cases can be attended in a given time, but how many cases can be attended in a given time without injury to health. We lately met a practitioner who had attended seven cases in twenty-three hours. This was of course very exceptional and fortuitous, two of the cases being patients of professional neighbours; but short of this exceptional excess there are numbers of practitioners doing an amount of midwifery practice which is altogether beyond their strength, and the discontinuance of which would add at once to the enjoyment and to the length of life, and, we will add, to its usefulness. To such men a reduction of one-fourth, or even one-half, in the number of their cases is recommended by every consideration of policy and prudence. It can be produced in the simple way of raising the fees—an expedient which retains the best cases, which tests the loyalty of patients, and which, with largely diminished work, often involves scarcely any diminution of income. But it will be said that some neighbour gets the cases which are declined. Of course he does. And it is well that he should. What a good neighbour gets is never lost, and a practitioner rarely loses anything with the public by a judicious and sensible valuation of his own powers and professional strength. It is said of Dr. BAILLIE that, with the view of getting more leisure, he went into a more retired house, and doubled his fees. The effect was to double his reputation. Another very important way of getting more rest from this arduous branch of practice is to reduce the number of primiparæ attended. Every objection to midwifery practice is intensified in the case of primiparæ. They are, of course, longer; they make the most trying and irregular demands upon one's time; they are more troublesome, more liable to need interference during labour, and to go wrong after labour is over. They are the more easily declined because there is no kind of obligation to accept the engagement, which there is in the case of patients whom one has already attended, especially in an obstetric way. Our advice to all men who find it difficult to get a holiday or leisure, and who sigh for some relief from the labour of practice, is to double the fee for first cases of midwifery, and, if this is not sufficiently deterrent to protect a commanding popularity, to treble it.

One of the secrets of doing midwifery work easily is, not only to apportion the number of cases to one's strength, but to preserve the physiological character of the cases; to so manage them as that the evacuation of the uterus shall not much more disturb the patient than the evacuation of an over-distended bladder or rectum. But this leads us to the threshold of the whole subject of the principles and practice of midwifery, upon which we shall scarcely tread. Plentiful ablutions, fresh air, judicious patience with labours that are only tedious, and judicious interference with labours that are unduly delayed in the second stage, little disturbance of the post-partum state, and the rigid protection of the puerperal patient from all contact with morbid or infectious poisons, are the principal points in that practice of midwifery which assimilates the process of parturition most to a physiological process.

THE histology of the spinal cord, especially in regard to the course of the fibres, seems still to be in a transitional state. From Dr. BROWN-SÉQUARD'S statements in the lectures still in course of publication in our columns, it appears that he is by no means satisfied with the commonly received opinions on this subject, which he has had so large a share in forming; and a recent paper by MM. SAPPEY and DUVAL shows that much still remains to be done before the physiology and, *a fortiori*, the pathology of the cord can be regarded as clearly made out. MM. SAPPEY and DUVAL observe that amongst the fibres of the cord some extend from the brain to the motor nerves, and, transmitting the mandates of the will to the muscles, preside over movement; others transmit to the brain impressions made on any part of the economy, and constitute the sensory fibres. These fibres, arranged in three columns, form the white substance of the spinal cord, and up to the present date microscopical observers have not been able to trace them through the medulla oblongata and the pons. MM. SAPPEY and DUVAL believe they have succeeded in doing so, and that they have succeeded in following the fibres in question from the upper part of the cord to their point of entrance into the optic thalami and corpora striata. One of the three columns is *antero-internal*,

and is limited internally by the anterior median fissure of the cord, and externally by the anterior cornu. The second, which is much larger, corresponds to the anterior part of this cornu, and occupies the whole of the interval between it and the posterior cornu; this is the *antero-lateral* cornu. The third, or *posterior column*, extends from the posterior cornu to the posterior median fissure. The two *antero-internal columns* decussate with each other throughout the whole length of the spinal cord, and thus play an important part in the formation of the anterior commissure. In the medulla oblongata and pons the decussation of these columns no longer takes place; they run separately, but parallel, gradually inclining backwards till they reach the posterior aspect of the medulla oblongata, where they form a slight longitudinal elevation on either side of the calamus scriptorius in the fourth ventricle. They then traverse the pons and cerebral peduncles, and finally enter the optic thalami.

The two *antero-lateral columns* form the well-known decussation just below the medulla oblongata, in which the antero-internal and posterior columns take no part. The decussation is effected by the giving off from each column of successive bands. The most internal layers approximate the central canal, and deeply groove the anterior cornua at the place of their continuity with the grey commissure, and ultimately, by the addition of fresh fibres, completely decapitate the anterior cornua. The fibres after their decussation ascend parallel to one another on either side of the anterior median fissure, and form, not the whole, but only the superficial part of the anterior pyramids. This layer MM. SAPPEY and DUVAL call the motor portion of the pyramids. The antero-lateral columns, in coming forward to decussate, at first push aside, and a little higher up cover, the antero-internal columns. On tracing these upwards they penetrate the pons, traverse it throughout its whole length, spread out on the under surface of the cerebral peduncles, and run towards and into the corpora striata.

The two *posterior* columns of the cord, having ascended above the level of the decussation of the antero-lateral columns, behave in the same manner; but they do not begin to decussate till the latter have entirely ceased to do so. They then incline forwards, break up into twelve or fifteen fasciculi, which decapitate the posterior cornu by traversing its deep extremity, and immediately turn round the grey substance situated in front of the central canal of the medulla oblongata, the fibres of the right passing to the left, and those of the left to the right. They now form a large triangular raphe, with the apex in front, but soon passing between the antero-internal columns, which this raphe separates, they assume the form in horizontal sections of a rectangle, the anterior extremity of which is applied to the motor portion of the pyramids, constituting the deep, or, as the authors term it, the *sensory portion* of the anterior pyramids. The posterior columns consequently preserve in the medulla oblongata their relative situation in regard to the lateral columns. In ascending through the pons and the cerebral peduncles they diverge from each other, become much intermingled with and obscured by the presence of masses of grey matter, and may ultimately be traced up forming the outer part of the cerebral peduncles to the optic thalami, into which they penetrate with the antero-internal columns.

Annotations.

"Ne quid nimis."

THE EFFECT OF ALCOHOL ON THE BRAIN.

AN interesting discussion took place at the Glasgow meeting of the British Association for the Advancement of Science on the action of Alcohol on the Brain. The burden of it displayed chiefly our need for fuller and more accurate facts. A paper on the subject was read by Mr. C. T. Kingzett, who gave a *résumé* of the investigations of Percy, Thudichum, Dupré, Marcet, and others, and proceeded to detail some observations made jointly by himself and Dr. Thudichum. These inquiries were, however, based on the latter gentleman's researches on the chemical constitution of the brain, and on the value of those researches, we believe, there is much difference of opinion. Mr. Kingzett had attempted to ascertain the effect of alcohol on the chemical constituents of the brain by maintaining the brains of oxen at the temperature of the blood, in water, or in water containing known amounts of alcohol. The extracts thus obtained had been studied in various ways, and submitted to quantitative analysis, while the influences exerted by the various fluids on the brain had been also studied. These influences extended in certain cases to hardening and to an alteration in the specific gravity of the brain-matter. Water itself had a strong action on brain-matter (after death), for it was capable of dissolving certain principles from the brain. These principles included cerebrine, myeline, and apparently a new phosphorised principle insoluble in strong alcohol, together with that class of substances generally termed extractives. At the same time, the brain swelled and attained a smaller specific gravity; thus in one case from 1036 it became 1007. Alcohol seemed to have no more chemical effect on the brain than water itself, so long as its proportion to the total volume of fluid did not exceed a given extent. The limit would appear to exist somewhere near a fluid containing 35 per cent. of alcohol. But if the percentage of alcohol exceeded this amount, then not only a larger quantity of matter was dissolved from the brain, but that matter included "kephaline," not dissolved by water only.

These facts are little more than exact statements of the experiences of every student in the post-mortem room, and the application which Mr. Kingzett made of his conclusions to the phenomena of life is somewhat doubtful. He represented that what he had ascertained of the action of water on the brain after death, was likewise true of an extraordinary watery serum in life. But if the serum were rich in salts, those salts, by a power of combination which they had for the cerebral principles, would preserve the integrity of the latter. On the other hand, it was difficult to see how any of the matters known to exist in the blood could prevent alcohol, if present in sufficient amount, from either hardening the brain (as it did after death) or dissolving traces of the principles to be henceforth carried away in the circulation; that is to say, should physiological research confirm the stated fact that the brain in life absorbed alcohol and retained it, it would almost follow of necessity that the alcohol would act as he had indicated and produce disease, perhaps *delirium tremens*.

This, however, ignores the modification in the result which the state of life must produce. This was pointed out by the president, Dr. Allen Thomson, and by Dr. Cleland. The former alluded also to the influence of alcohol in causing connective-tissue overgrowth in the brain as well as in other organs, so that Schroeder Van der Kolk asserted that he could tell the brain of a drunkard in the dark by

touch. He suggested that some more experiments on oxen should be undertaken. Dr. Burdon Sanderson suggested the desirability of these being undertaken by Government. Mr. Romanes described the effect of Highland whisky on jelly-fish, which become intoxicated by it, and behave not unlike those to whom it is a more ordinary pabulum. Dr. Allen Thomson suggested that the "drink craving" in habitual drunkards probably results from the effect on the nerve-cells of the brain, which underwent actual physical change. This constituted a large part of the difficulty in their reformation.

BRITISH MEDICAL AID IN SERVIA AND BULGARIA.

THE circumstances of the last week in the East, comparatively uneventful in a combatant sense, appear equally so as to the subject with which it is our province to be more specially concerned. The National Aid Society, or rather its acting representatives, still continue to "hasten slowly," although up to the present time there is no solid ground for supposing that peace will be the outcome of the armistice. Mr. Kennett, of whose administrative abilities we spoke last week, has obtained horses at last for the Society's ambulances, and had a week ago got as far as Rashan. It is to be hoped, however, that by this time horses have been bought, but at that period no money was forthcoming for the purpose, and those used for the journey from Belgrade to Rashan were hired or obtained by requisition, and were of course taken away as soon as the stipulated distance was accomplished. A large barge has been fitted up at Semendria, as a kind of hospital transport, by Baron Mundy, and the National Society undertook to provide towing-power. But again no money was forthcoming, and up to eight days ago this very convenient variety of ambulance could not be utilised. Cases of stores have been brought up to the front by the Society's officers, and sent back again, and so on. Nothing at all appears to have been done on the other side of the Danube, so that this week's summary is to us and to our readers as unsatisfactory as the last. Sir Edmund A. H. Lechmere, chairman of the Eastern War Sick and Wounded Relief Fund, acting for the Order of St. John, writes to *The Times* to the effect that his party has thrown in its lot wholly with the National Aid Society, and that the officers of the former are now entirely under the control of those of the latter. This staff consists of Drs. MacKellar, Attwood, Hume, Hare, Sandwith, and Boyd, all of whom have worked with great energy since their arrival.

We have to comment upon the entire absence of all professional news from head-quarters, both Turkish and Servian. The letters that have appeared from time to time from Dr. Humphry Sandwith relate almost exclusively either to food and clothes (matters that might as well have been left to the lay members), or to the political aspects of the war, copious details as to which can be obtained without any difficulty. Dr. Laseron writes to Mr. Morley (a liberal supporter of the National Aid Society) in the same strain, telling us that "the country of the Serbians is a little Paradise," that "the blood of these men who are slaughtered will rise up against us," that "there is a marked difference between the Turkish and Christian villages" (!), and so forth, making altogether some very pretty and proper reading for the first class of a Sunday-school. But no parts of these letters sent for publication by Mr. Morley contain the smallest information likely to be useful to surgeons about to start for the seat of war, or to the Society, in regulating the kind and disposition of medical aid in the future. We have heard—and this, indeed, was very well known long before the war began—that the sanitary arrangements of hospitals in Servia are not equal to those that generally obtain in the Western States; but we know nothing at present about any particular varieties of wounds caused in this war by guns and other weapons, and how climate and sanitary conditions are influencing results. It was reported by telegram of the 21st that plague had broken out in the Turkish army before Alexinatz, though this information is not derived from the National Aid Society, none of whose staff seem to have got so far at present. But, as hospitals now exist between Belgrade and Semendria, some brief notes of the general condition of the inmates might by this time be forthcoming. The reticence of Mr. MacCormac is remarkable, particularly as his skill and activity as a war surgeon are so well known, and his position in the Society is so conspicuous. It is to be hoped that next week will furnish some material wherewith to neutralise or modify the unfavourable comments indulged in by the lay press on the administration of British medical aid in the East.

HOUSE DRAINAGE.

IT is, as we take it, a matter of great congratulation that during a portion of the year the columns of the leading daily journals are more than ordinarily accessible to people who, specially well informed on some one subject, are anxious to give the public the benefit of that information, albeit in a diffuse and inconveniently elaborate manner. House drainage has been thus discussed during the past fortnight, and if no other good has been effected, the varied remarks must surely have shown to householders pretty plainly the fact that the local authority is not responsible for the removal of the sewage of dwelling-houses, until that sewage has been delivered at the junction of the main with the house-drain, wherever that point may be. Landlords, as well as tenants, are far too apt to forget this important fact, the more consequential because, partly on account of the faulty construction of house-drains, and partly on account sometimes of unavoidably complex arrangements, the house-pipes proper are far more likely to become blocked, to leak, to foul the drinking water, or to flood the gas, than those that belong to the main drain. A letter, written by Mr. Peregrine Birch, and inserted in *The Times* last week, gives a glaring instance of faulty house-drainage. The basement of a West-end club having become uninhabitable from the presence of sewer-gas, a search was instituted; the subsoil was found to be charged with sewage to within three or four inches of the paving-stones under a considerable portion of the building, and the underground shafts for supplying fresh (!) air had some two feet of sewage standing in them. The gratings by which these latter were connected with the kitchen were partially closed against the objectionable gas by mats forced against them for this purpose. Leaky and stopped-up earthenware pipes of the old class constituted the simple cause of this state of things. And, as Mr. Birch remarks, the remedy was equally simple—namely, a system of cast-iron drains, with gas-tight joints.

There are, however, two points that house-owners, householders, and builders should keep well in view. Upon examining a house with a view to buying or renting, begin your inspection from below upwards, and not from above downwards. Let the condition of the soil below the floor and beams of the lowest inhabited or uninhabited room be closely examined, as well as the general direction of all the sewer outlets, their relative situation to gas and water, the style and condition of the traps, as well as of the waste and ventilating pipes, sinks, &c. For it must be remembered that, in the case of Croydon, we reported the defects to exist *within*, and not without, the

houses concerned, and that this report was confirmed by Dr. Buchanan, who quoted other instances of a precisely similar kind that had been found in the course of inspections made by the officers of the Local Government Board.

The other important point is, the situation of the main drain with reference to the houses for which, in common with others, it has been constructed. Some two years ago, as we indistinctly remember, a feud arose between certain house-builders in Wandsworth and the Metropolitan Board of Works, because the latter declined to afford facilities for the discharge of the sewage of these houses by what is known as the "back" system, which system, very simply but very consequentially, takes all excreta &c. away from the back of the premises; so that no drain of any kind is conveyed under the house. This is a cardinal point in house drainage, but in towns and crowded suburbs is just now a difficult problem to solve, because most of our main drains have been built under the chief streets and roads. This will, of course, be remedied in time. Meanwhile, we say to any man about to buy, sell, or occupy a house: If the sewer-pipes discharge into the main drain from the back of the house, class that house as worth at least from 10 to 15 per cent. over one not possessing such an arrangement; for you will probably save more than the difference in the absence of a doctor's bill.

VENTILATION OF TUNNELS.

ENGINEERING skill has always been far in advance of sanitary science. We continue to discover all sorts of means whereby progression may be increased in rate, time economised, and so the amount of work, mental or physical, that can be got out of any one individual in a given number of hours increased. But the practical tendency of all this is to shorten rather than to lengthen the natural term of life, and sanitary science has only just begun to counterbalance this inevitable result of the express speed at which we now live and move, at all events in and about our large towns. Special attention is, however, now being directed, among other things, to the ventilation of tunnels, not a whit too soon, considering that the first tunnel constructed on proper engineering principles must have been made, we should say, considerably more than a century ago. Nearly all people who travel on business or pleasure are now, perforce, more or less inconvenienced by breathing foul air in transit. There is that gigantic and never-failing reservoir, the Metropolitan Railway, the two passages under the Thames at the Tower and at Wapping, to say nothing of all sorts of railway tunnels, and other subways both in London and the provinces. We have seen nothing at present that appears specially valuable or practical even as a suggestion, except some brief remarks by Mr. G. J. Morrison, to the effect that when tunnels without shafts are to be ventilated, fans should be employed to keep up an artificial ventilation, and that for a given amount of traffic, the power required to ventilate a tunnel varies as the fourth of the length. But the author does not indicate whether it is proposed to work the fans on the "plenum" or the "exhaust" principle. If it be found really necessary to adopt means of this kind, there can be little doubt that the "exhaust" plan is preferable. Whether the place to be cleansed be above or below ground, on the water, in the water, or under it, if means be adopted to expel the vitiated air, we may safely leave the rest to nature. A great many costly and ingenious systems have been produced, and are in operation, both ashore and afloat, to promote ventilation. But these inventions are in most cases directed to the introduction of a body of clean air into the space dealt with, little or no regard being taken as to the exits. The practical result is failure, or, at best, a mixture of good and bad air. According to our own experience, and with a vast array of "schemes" before us, the simplest and best means of ventilation yet produced seems to be one commonly called Tobin's and its modifications, and much advertised about two years ago, and another called Thiers' patent, which, by the way, is adapted only for use afloat. Both are automatic as to their working, and on the "exhaust" principle.

"MASTER" AND "MEDICAL OFFICER."

THE relations between "master" and "medical officer" in workhouses generally have long been unsatisfactory. A case which has just occurred illustrates one phase of the grievance. A drunken man, who had been pushed down and received an injury to the head, and who was duly fined at Worship-street for his intemperance, being found ill in the street after discharge, was taken to Bethnal-green Workhouse. The resident medical officer being absent, the master did not think it necessary to send for the deputy, and on the return of the medical officer the same evening, he was informed that there was nothing for him to see but a case of dropsy, which would do in the morning. The patient was not, therefore, seen by any medical man until the day following, when he proved to be *in extremis*, and died. The medical officer censured the master for his omission to send for the deputy. The jury adopted this judgment as to the master's neglect, and, in addition, expressed an opinion that the medical officer ought not to have absented himself until his deputy was in attendance. The opinion would be more to the point if the patient had been seen by the regular medical officer on his return. It seems that, whether a doctor be on the premises or not, the circumstance of an inmate having the benefit of his advice must depend upon the master. This is a fact, and it is one with which the Local Government Board ought to deal directly. The medical officer of a workhouse is as much under the direction of the master as the surgeon of a ship is under the captain. Indeed, he is not so well off, for whereas a captain seldom troubles himself about the health of his passengers or crew, the master of a workhouse exercises paramount authority over every department of the establishment. When the matron likes to share the midwifery fee, and the "doctor" is easy-going, the delay in calling in his assistance is habitual, and matters are further complicated. There should be a golden rule, that wherever medical men assume responsibility, the business of their department must be conducted on the principle of a separate hospital establishment, subject to hospital rules and regulations.

THE SALE OF OPIUM.

WE have been opportunely reminded that the Pharmacy Act requires registration of the sale of opium and its compounds. It provides only that opium, morphia, and other preparations should be labeled with the name of the article, the word "poison," and the name and address of the seller. No introduction is necessary, the purchaser need not be known to the seller, no entry of the sale need be made.

It is difficult to understand the justice or the wisdom of provisions by which poisonous doses of opium may be sold freely, although a dose of arsenic or aconite may not be sold, or a poisonous dose of belladonna may be sold and a dose of atropine may not be sold. The illegal use of poisons is twofold—their self-administration and their administration to others. To limit the freedom with which poisons could be obtained for these two purposes was one object of the Pharmacy Act; but its

operation is strangely one-sided. The use of opium and its preparations, as an agent of self-destruction, probably exceeds the illegal use of all other poisons put together. Moreover, the number of accidental poisonings from opium is also far greater than from any other agent. There is no poison the sale of which in large doses needed restriction so urgently. And its sale is practically unrestricted. We do not hesitate to say that opium should never be sold in large quantities except on medical prescription. Such a regulation would entail no hardship, for there is probably no condition in which the use of large quantities of opium is needed in which medical advice is not necessary. The more the difficulties placed in the way of opium-eating the better for the physical and moral well-being of our population. Of course no provision would entirely stop the promiscuous use of opium, but the prevention of its sale in larger quantities than two drachms would lessen very much the ease with which accidental and suicidal poisonings can now occur. Such a provision would entail no real hardship on chemists, whose true interests are those of the public.

EFFECTS OF THE ENTRY OF AIR INTO THE VEINS.

THIS question forms the subject of a pamphlet by M. Couty, of Val-de-Grace. In it he discusses in succession the various theories that have been proposed—cerebral, cardiac, and pulmonary—to account for the phenomena observed, and shows that none of them are quite satisfactory. He has made numerous experiments on dogs under various conditions—healthy, curarised, uninjured, and with the chest laid open, so that the movements of the heart might be examined and tracings taken. The results at which he has arrived are that air in the veins proves fatal through the circulatory system; it first diminishes and then suppresses the aortic wave and the arterial tension. Death is preceded by four periods, the rapidity of succession of which varies. First period: The arterial tension diminishes some centimetres, but this diminution is compatible with the exercise of the greater functions. Second period: The tension falls from four to eight centimetres, and disturbances arise from cerebral anæmia, acceleration of the respiratory movements, then further fall, loss of consciousness, &c. Third period: The arterial tension sinks almost to zero; symptoms of medullo-bulbar anæmia appear, with contractions of the striated muscles, involuntary evacuations, and diminution in the frequency of the respiration. Fourth period: Complete arrest of the circulation; the nerve-centres die, the respiration ceases, and the right and left heart, the contractions of which are accelerated and energetic for the first three periods, are soon after arrested. But the arrest of the circulation may be very incomplete, and the disturbance from the entrance of air transitory, and then the general disturbances may be slight, or not perceptible, or they may only extend to the second or third period. But how does air in the veins arrest the circulation? M. Couty replies, by distending the right cavities of the heart. In them it accumulates and gradually produces asystolia, rendering the contraction of the right heart incomplete, and occasioning insufficiency of the tricuspid valve. The dilatation of the right side is so great as to double or treble the size of the cavity. The venous pulse is very strongly marked, even as far as to the crural vein, and air is projected throughout the venous system, appearing in the sinuses of the dura mater. Lastly, the heart contracts on an elastic fluid, and compresses instead of propelling it. M. Couty's view, therefore, is, shortly, distension, consequent on which is asystolia, and, finally, diminution or suppression of the pulmonary wave.

THE SANITARY CONDITION OF ST. PANCRAS.

THE sanitary authorities of St. Pancras recently expended a good deal of virtuous indignation with regard to the verdict of a jury called to inquire into the cause of the death of a child in Upper Fitzroy-place, in that parish, the result of the verdict being that the place was stigmatised, on insufficient evidence, as a fever den. The last weekly return of the Registrar-General mentions a fact which might now usefully engage the attention of the local sanitary authorities. During the week ending 23rd inst., seven fatal cases of fever occurred within the registration district of St. Pancras, of which two were certified as typhus and five as enteric or typhoid; and it is further stated that these deaths were equal to an annual rate of 1·57 per 1000, whereas the fever-rate in the rest of London did not exceed 0·48 per 1000. It should be stated that one of the two deaths from typhus was recorded in hospital outside the district. Those who know St. Pancras thoroughly, and are interested in the sanitary welfare of the district, must regret the recent decision of the local sanitary committee and the medical officer of health, that there is no part of the parish to which the provisions of the Artisans' Dwellings Act of 1875 could be advantageously applied. The committee expressed themselves satisfied that previous enactments had proved adequate for dealing with the class of houses in the parish which were proved to be in an insanitary condition. The vestry are evidently aware that the condition of some localities is far from satisfactory, as a vestryman, in moving the adoption of the report of the sanitary committee, reminded the vestry that the medical officer of health "did not say there were not places that were a disgrace to any parish." It may be hoped that the present outbreak of fever will stimulate measures being taken to improve the sanitary condition of these places, whether the measures are taken under the Artisans' Dwellings Act or in accordance with those previous enactments, as to the adequacy of which the sanitary committee and the medical officer of health appear to be sanguine.

SEAWORTHY SAILORS.

Mr. ROBERT ALEXANDER CALDWELL, surgeon to the Cunard steamship *Russia*, writes to us on this subject. The letter is too long and somewhat too diffuse for reproduction, but the author, referring to the risks of collisions between ships on the Atlantic and elsewhere, and their comparatively frequent occurrence, urges the importance of ascertaining that all seamen detailed for the "look-out" shall be optically sound. The idea is an admirable one, and eminently practical. Messrs. Burns and M'Iver are always in the van of improvement as to these and other nautical matters, and so, acting on Mr. Caldwell's suggestion, the manager in the medical department has provided the surgeons of all their ships with a set of test types, and has given instructions that the "look-out" men shall, after the usual examination, be specially reported upon to the captain by the surgeon as to the condition of their eyesight.

When the letter above quoted arrived we were on the eve of recording briefly particulars from the police sheet of a case in point as to the physical examination of seamen before signing articles. The chartered transport *St. Lawrence*, a fine, well-found vessel, has just arrived from Mauritius, and a man who had shipped in her as fireman at Portsmouth only four months previously sued the captain for wages for the entire voyage, although he "knocked off" work twenty-four hours after the ship sailed, having reported himself as "consumptive," was under the surgeon's hands during the whole of the trip out and home, and did nothing but sweep up the deck. The captain of the

ship, however, liberally treated him as an ordinary seaman, reducing him from £4 10s. to £2 10s. per month. This is but one among scores of instances in which seamen physically incompetent go on board ship, lay up, and take money from the owners that they have not earned. The suggestion made by Mr. Caldwell is worthy the attention of surgeons on board all our great steamships, but affords also a still more cogent reason for a general and compulsory medical inspection of seamen.

BROMIDE OF POTASSIUM AS A CAUSTIC.

IN a paper read at the recent meeting of the French Association for the Advancement of Science, M. Peyrand, of Libourne, claims for bromide of potassium certain properties hitherto but slightly recognised—properties which will extend the already wide range of the therapeutical uses of this salt. He found that subcutaneous injection in rabbits of concentrated solutions of the salt led to sloughing of the skin, and from this he was led to try the value of what he considered to be the escharotic properties of bromide of potassium upon malignant and other growths, either by means of injections into the tumour or by the application of the powdered salt to a raw surface. The action of the salt is completely resisted by the tegument. His first clinical experiment on the subject took place in April 1874, when, by means of daily applications of powdered bromide, he effected the removal within twenty-eight days of an epitheliomatous growth on the face. He has since had equally good results from this treatment of atonic ulcers of the legs, rapid cicatrisation following the separation of sloughs produced by the application. In such cases he uses either the powder or an ointment of one part in five, or a mixture (one in ten) of glycerine and the bromide. In many skin affections, as chronic eczema, pityriasis, and acne, in phagedæna, ulcerative stomatitis, and many other local inflammatory disorders, he has found it of use. As a local hæmostatic, a solution of one in fifty has served for epistaxis, and as a general hæmostatic its success in many cases of hæmoptysis and metrorrhagia was very marked, where ergot, perchloride of iron, and rhatany had failed.

SANITATION AT PENZANCE.

FROM the last week's issue of the *Cornish Telegraph*, we find that Penzance is so exceptionally fortunate as to have had its sanitary affairs attended to gratuitously in past years, and that these services are to be continued without salary for a further period of twelve months. Not only does Penzance contain a resident population of nearly ten thousand inhabitants, but it is a rapidly rising watering-place, visited by a large number of tourists during the summer, and frequented by many invalids with pulmonary affections in the winter. It is also a port of some consequence, with a certain amount of shipping, both coasting and foreign. We must be excused at expressing our surprise that anyone should undertake such responsible duties as those of its medical officer of health for the thanks merely of a Town Council, even when unanimously voted. We should like to know whether any member of the legal profession is so anxious to save the rates of the borough as to discharge any official duties without fee or reward. We hope that this is a unique case in our profession even, and we fail to see why this is an "inopportune" time for Mr. Alderman Boase to withdraw his gratuitous services. We had almost thought that there were no sanitary matters to be dealt with, and that the appointment was so purely a formal one that a new Hygeiopolis was quite unnecessary. To our extreme astonishment, we find in another paragraph a brother alderman complaining that "only a few yards from where I live, a large house has been a month without water"! To this the Mayor replies, "If we go into the question of defective supplies, we shall be here for an hour." (Laughter.) A very little sanitary knowledge on the part of the local authorities would be sufficient to teach them how little of a laughing matter such a condition of affairs is, and how dangerous it may possibly become, even if the town be free from zymotic diseases at present. They can surely well enough afford to pay a medical officer of health, who might begin by teaching them the necessity of a continuous supply of pure water; and he would no doubt find this and his other sanitary duties sufficiently onerous and responsible as to fairly entitle him to a salary, as is the case in all English watering-places except this one in the extreme west.

"THE FUTURE OF PHYSIOLOGICAL RESEARCH."

A THOUGHTFUL and suggestive address with this heading was delivered by Dr. J. G. M'Kendrick, in the department of Anatomy and Physiology, at the late meeting of the British Association. Speaking of the outcry recently raised against vivisection, he observes that no one can read the evidence in the bluebook and the report founded thereon without coming to the conclusion that the case of the anti-vivisectionists completely broke down, but he trusts that, now the Bill has passed, further agitation will be avoided. The true prevention for casual excitements of this kind is the diffusion of knowledge, and he thinks there is no objection to ladies, and, we might add, men too, receiving some instruction on the general structure and functions of the human body. Such instruction will lead to many social questions being viewed more from the physiological standpoint than at present, whilst it would have many advantages from a medical point of view. After paying a high compliment to Mr. Lister's plan of treatment in the dressing of wounds, he insists on the importance of investigations on the physiological action of active substances, and then discusses the relation of physiology to medicine and to psychology. The most promising lines of inquiry in physiology which may lead to the solution of psychological phenomena are those of Hitzig and Ferrier, on the excitability of the cerebral hemispheres; of Wundt, on cerebral innervation and consciousness; of Stirling, on the summation of excitations in reflex mechanisms; of various French physiologists, on the mode of action of ganglia in Insecta; and of attempts suggested by himself to discover peculiarities of brain structure in the lower animals, as birds, in which peculiar mental characters may be observed. Dr. M'Kendrick calls attention to Dr. Thudichum's researches on the chemical composition of the brain, and gives a lucid exposition, with illustrations, of Fechner's "psycho-physical" law; and he concludes by observing that it is our duty vigorously to prosecute research in all departments, pushing ahead fearlessly and with that enthusiasm which is the prime mover in all great deeds, so that we may be able to transmit our department of knowledge to posterity not only less burdened with error, but with many additions of truth. Altogether, a very creditable address.

ACTION OF THE POISON OF THE SCORPION.

PROF. VALENTIN has just published the results of a series of experiments he has made on the action of the poison of the scorpion, which may interest some of our readers who are likely to be stationed on the Northern Coasts of Africa. The animal (Scorpio occitanus) uses its tail primarily as an instrument for removing anything that annoys it, and secondarily as a weapon of offence. One or two stings sufficed to kill a small frog, but large ones were only temporarily distressed by it. The action of the poison was

rapid, especially if the skin had been previously removed from the thigh of the frog, so that the sting penetrated the tissues directly. The animal that had been stung was more quiescent, and seemed less capable of moving on irritation than a healthy one. It not unfrequently uttered a cry. After a time the excitability increased, and contact caused transient tetanus. If the toes were pinched, the animal made an effort to spring forward, but fell on its back and was unable to recover its normal position. A remarkable quivering of particular fasciculi of the muscles, or of whole muscles, followed any violent movement. Reflex irritability diminished from behind forwards, the posterior extremities being first and the eyes last affected. Reaction to stimulation persisted longer in the muscles than in the nerves. Testing with constant currents showed that the ordinary law of contraction—the occurrence of closing contraction—remains to the last if the current be not too strong. Strong currents induced weak opening contraction. The muscle-curves presented their ordinary form. The pupil retained its normal medium size. The heart usually continued to beat for a little while after the cessation of all voluntary movement.

SMALL-POX FATALITY IN OUR LARGE TOWNS.

DURING the week ending the 23rd inst., 28 deaths from small-pox were registered in 20 of the largest English towns, of which 11 occurred in London, 9 in Manchester and Salford (exclusive of 5 in the Monsall Hospital, which is situated outside the city), and 8 in Liverpool. No fatal case occurred in any of the 16 other large towns. The disease has been more or less fatally prevalent in Liverpool, Manchester, and Salford since the beginning of the year. In London only 7 cases were registered during the first quarter of this year; the number increased to 26 in the three months ending June last, and since the beginning of July, 95 more have been recorded. In the week ending 23rd, 11 were registered in London, against 5 and 16 in the two preceding weeks; of these 11, 3 occurred in North, and 8 in South London. The 11 fatal cases included 4 certified as unvaccinated, and 4 as vaccinated; 3 being "not stated" as to vaccination. The 95 deaths from small-pox in London registered since the beginning of July included 24 of children under five years of age, 25 of young persons aged between five years and twenty years, and 46 of adults aged upwards of twenty years. Thus, only 25 per cent. were of young children, whereas the proportion during the small-pox epidemic in London in 1871 was 37 per cent. This may be partly due to a reduction of the number of unvaccinated children, and partly to the isolation in hospital of so large a proportion of the recent cases, which prevents the exposure of young unvaccinated infants to infection. On Saturday, 23rd inst., the Metropolitan Asylum District Small-pox Hospitals at Homerton and Stockwell had 101 of their 204 beds occupied with patients—a higher number than in any previous week this year.

DECAY AFTER DEATH.

THE length of time bodies resist the chemical forces operating for their decomposition is very remarkable. It used to be thought that the preservation was due to special measures taken to protect them from decay, or that it was the consequence of fortuitous circumstances. The evidence gradually accumulated tells against these presumptions. A body disinterred a few days ago at Clapham, near Bedford, supports the belief that decay after death is generally slow. The Rev. F. Dawson died on October 16th, 1870, so that his body has been buried nearly six years. It was, however, "very little decayed." Whether the policy should be to expedite the process of return to dust by burial in wicker coffins may be a question, but it is certain that in ordinary cases comparatively little change takes place beyond that occurring in the first few days after decease, and this even will be minimised if the corpse is promptly enclosed in an air- and water-tight coffin. The subject is a grim one, but in its sanitary aspect, and practically in relation to the disturbance of old burying-grounds, where the germs of disease may be lying dormant in bodies which have not been chemically decomposed, it is important.

"OBTAINING MONEY UNDER FALSE PRETENCES."

IT will surprise no one to hear that the allegations made by Professor Lankester against "Dr." Slade and Mr. Simmonds are to be cast into a practical shape by the prosecution of these so-called spiritualists under the Vagrant Act. The *World* says that the names of "Dr. Carpenter, F.R.S., Mr. T. J. Allman, the publisher; Mr. Henry Sedgwick and Mr. Edward Gurney, both of Trinity College, Cambridge; and Mr. Richard Hutton, the editor of the *Spectator*," are upon the summons "as persons alleged to have been defrauded." Mr. George Lewis is to conduct the case against the defendants. The hearing will take place on the 2nd of October. We have already expressed an opinion that imposture under the pretence of spiritualism ought to be punished by the law, wholly independent of the charge of "obtaining money under false pretences." It is, however, satisfactory to find that the same justice may be meted out to pretenders who profess the higher walks of a "Black Art" which is visited, sometimes, perhaps, a little harshly, upon the more humble operators whose victims are only poor servant girls. Those who contrive to prey on Fellows of the Royal Society, members of a university, and leaders of public opinion should not be allowed to escape with impunity. Sometimes we see remarks appended to the notices of ordinary cases uncomplimentary to the intelligence of the servant girls and others who figure as victims. It is even alleged to be a proof of ignorance that they are easily deluded. We trust nothing so ill-natured will be said or suggested to the discredit of the gentlemen who complain that they have been victimised by the spiritualists!

TREATMENT OF INSANITY IN AMERICA.

IN connexion with this subject we recently reproduced from authentic American sources a series of statements purporting to show the need of official supervision of asylums throughout the United States by a permanent Board like that of our own Commissioners in Lunacy. One of the cases cited concerned "the management of the Government Hospital for the Insane," near Washington. The matter has been officially investigated by a commission appointed by the House of Representatives. We reproduce the following from the Report, No. 793, page 19:—

"That Dr. Nichols is competent to discharge the duties of his office there can be no doubt in the mind of any intelligent person who will read his evidence, and although he may seem to have been negligent or indifferent in the discharge of those duties, in view of the fact that abuses have existed in the care of patients by their attendants, yet the committee think he ought not to be held responsible for these abuses. The great amount of labour he is required to perform in superintending, not only the medical and sanitary departments of the institution, but in the purchasing of the necessary supplies and the overseeing of the cultivation of the large body of land connected with the hospital, render it impossible for him to give that strict and constant attention to the government of the patients and their attendants that he could give if he were relieved from all other duties. The committee, after hearing the testimony of the witnesses who were examined in the early

part of the investigation, were inclined to the opinion that long familiarity with suffering, sorrow, and distress, always to be found in institutions of this character, had deadened the sensibilities and sympathies of the superintendent and his assistants to such an extent as to cause them to forget that their mission was one of forbearance and mercy, instead of force and inhumanity; but, after a careful consideration of all the testimony, and a thorough inspection of every department of the hospital, they are convinced that there is no just ground for such an opinion, and that the charges against Dr. Nichols have not been sustained."

INFECTIOUS DISEASES AT TUNBRIDGE WELLS.

THE *Tunbridge Wells Gazette* makes a very ineffectual attempt to invalidate our statements in reference to the case of scarlet fever that is the subject of a lawsuit between the Commissioners of Tunbridge Wells and Mr. Bisshopp. We leave the readers of our contemporary to judge for themselves. They will be of our opinion that all that was essential in our statements remains uncontradicted. As to the charge of 10*s.* a week, that, it would seem, is not exacted *when it cannot be got*. There was a good deal of haziness about this part of the subject among the members of the Board. It is virtually admitted by our contemporary that there was no medical man to treat the case, as Mr. Bisshopp refused to treat it. It is not denied that the relieving officer sent the man with scarlet fever to another parish miles away, where both parochial and sisterly charity were found wanting, so that the man had to return on foot. A man with scarlet fever, we take it, belongs to no parish but the one he is in. The interest of ratepayers is not to be considered for a moment in such a case. We continue to be of the opinion that a place like Tunbridge Wells should have not only a hospital for infectious cases, but a reliable arrangement for their being properly attended. It is monstrous to say that a sanitary authority has power to provide a hospital for such cases, and not to provide medical attendance for them. Sanitary law is in a very imperfect state, but it is not quite so absurdly imperfect as this would imply.

HEALTH OFFICERS' REPORTS AND SANITARY AUTHORITIES.

LOCAL sanitary authorities, especially in watering-places and health resorts, are not, it appears, to be easily persuaded that the publication of authentic health reports affords the greatest security against vague and often unfounded rumours, and is thus most conducive to public confidence. We somewhat recently pointed out that Southport had suffered more in reputation from exaggerated reports as to the fatal prevalence of small-pox and fever than would have been the case if the Town Council had authorised the publication of periodical reports by their medical officer giving thoroughly trustworthy bulletins of the health of the town. At a recent meeting of the Torquay Local Board a discussion took place with reference to the medical officer of health's last annual report, from which it appears that the report had already been referred to the medical officer of health, and was pronounced to be "not so objectionable as it was at first," although some portions of it were still considered "very objectionable," and necessary to be discussed before it was decided to publish the document. A proposition that the report be printed was met by an amendment that its consideration be postponed until the next meeting, after which it might be decided whether it should be printed. Now Torquay has a very fair health reputation, is spending £40,000 on a main drainage scheme, and its water-supply is under the consideration of a water-committee and sub-committee. Sanitary matters are therefore in a fair way to add materially to the reputation of this watering-place as a health resort. How much to be regretted, therefore, is the short-sighted policy of attempting to suppress their medical officer of health's report, because it, in all probability, dwells upon one or two unwelcome truths as to sanitary defects still existing in the town. The suppression of these truths will only have the effect of making the public exaggerate the nature of the defects, and the danger to be apprehended from them, at the same time that it discredits the earnestness of the authority in attempting to remove them. We hope that on further consideration the Torquay sanitary authority will recognise the wisdom of dealing openly with Mr. Rhind's annual report. It is satisfactory to learn that the authority have decided to appoint their medical officer of health in future for three years, instead of limiting the appointment to a single year.

RENAL NEURALGIA IN LOCOMOTOR ATAXY.

TO the catalogue of visceral neuralgias in association with locomotor ataxy, with which readers of M. Charcot's admirable lectures are well acquainted, must be added yet one more—namely, a renal neuralgia. The case in which this was the predominant symptom was related by M. Reynaud at the last meeting of the Académie de Médecine. A man, thirty-nine years of age, was admitted into hospital suffering apparently from a severe attack of renal colic. There was extreme lumbar pain, marked retraction of the testicle, vesical tenesmus, suppression of urine, vomiting, and a condition of semi-coma. The diagnosis of renal colic, at first entertained, was subsequently abandoned, chiefly on the ground of the long duration of the attacks—namely, several days at a time,—followed by a temporary cessation and recurrence, finally becoming continuous. Moreover, the pain was radiated towards the shoulder as well as towards the thigh, and the urine was free from albumen. At the post-mortem examination, the kidneys were found to be healthy, and the cause of the renal trouble was found to lie in sclerosis of the posterior columns of the cord. The patient had never had any incoördination of movements. M. Reynaud thinks there can be no doubt that this was a case quite analagous to those in which the stomach and intestines are usually the seat of neuralgia; and as he believes this to be the first instance in which nephralgia was marked, he contented himself with simply recording the facts of the case.

TYPHOID AND QUARANTINE.

WE find the following in the *Shipping Gazette* of the 25th inst.:—

"An inquest held at Cardiff on Friday last revealed the fact that doctors sometimes disagree. A sailor died on board the steamer *John Byng*, in the Penarth Roads, and Dr. Pratt, who examined the body, pronounced an opinion that death resulted from heart-disease. Dr. Paine, the medical officer for the port, subsequently appeared on the scene, and declared that death was due, not to heart-disease, but to typhoid fever. The jury adopted the view of the latter gentleman, and the vessel was placed in quarantine."

We pass by the difficulty as to diagnosis, and have only to remark that the practical result was somewhat inconvenient to the master of the ship. But why put, or attempt to put, the vessel in quarantine for typhoid? and of what does quarantine consist in Penarth Roads? The Cardiff Port Sanitary Authority ought by this time to be aware that vessels in British ports can be only quarantined (or even detained) on account of plague, cholera, and yellow fever, so that, legally speaking, no quarantine, either of detention or of observation, should have taken place in this case. We should like to know more precisely what occurred as a result of the verdict, and have to remark parenthetically that the

sanitary laws should be studied carefully by those entrusted with their administration.

SMALL-POX IN ISLINGTON.

AN outbreak of small-pox in the Thornhill district of Islington has been investigated and reported on by Dr. Wilkinson. After detailing the circumstances of twenty-one cases which had occurred in one street, and the precautionary measures he had undertaken in each infected house, Dr. Wilkinson requested the district School Board visitors to endeavour, through the masters of the different Board schools, to let him know of any unvaccinated pupil, that he might communicate with the vaccination officer, and urged a thorough inspection of the underground dwellings in the district. Many of the present habitations were but cellars and damp and unventilated hovels, often greatly overcrowded—conditions eminently calculated to induce and foster disease. The Islington Guardians, after discussing the report, resolved that the Local Government Board should be asked to consider the desirability of compelling medical men to give information to the district medical officer of all cases of small-pox and contagious diseases that come under their notice, and, further, that the Board take steps to enforce in the metropolis the Acts relating to overcrowding and underground dwellings. It is high time means were taken to define the duties of medical practitioners with regard to reporting infectious disease occurring in private practice. It is a difficult and delicate point which will require the most earnest thought of the Local Government Board.

SOUTH AFRICA.

WE have recently received intelligence to the effect that influenza has, during the past two months, been epidemic in all parts of Cape Colony, and has attacked, in a more or less severe form, more than 30 per cent. of the inhabitants. Many fatal cases have occurred, among them that of Dr. Godfrey Sandwith, of St. Helena Bay, reported in *The Times* of the 23rd inst. The disease is reported to have stopped general business entirely in some towns and villages of the colony. Simultaneously with this epidemic appeared some cases of cerebro-spinal meningitis, which, as elsewhere, proved rapidly fatal, many young persons being killed by it within forty-eight hours after the commencement of the attack. We hope shortly to publish a detailed account of these epidemics, as the Government physicians at Cape Town and in the provinces are said to be preparing a special report upon the subject.

SIR WILLIAM GULL AND DR. GEORGE JOHNSON.

WE understand that Sir William Gull has presented his statement of the differences between Dr. George Johnson and himself, arising out of the case of the late Mr. Bravo, to the President of the College of Physicians. Dr. Johnson has lodged a rejoinder. Both documents are before the President and Board of Censors, and a meeting for deliberation will, we believe, be held next week.

SIR WILLIAM FERGUSSON.

WE are glad to hear that Sir William Fergusson continues to regain strength, and on the whole maintains his ground. He intends to return to London about the second week of October.

THE school-ship *Exmouth*, successor to the *Goliath*, will be towed round from Devonport in a few days, and moored in the place of the former ship off Grays. She has already cost the authorities nearly £10,000, and is by no means complete as to her fittings.

DR. DIPLOCK, coroner for West Middlesex, is extremely dissatisfied with the salary apportioned to him by the Middlesex magistrates for the next five years, and has taken what we cannot help thinking the unwise step of ventilating his grievance, and printing the correspondence he has had with Mr. Cross on the matter, in the pages of a local newspaper. He complains that the salary he will receive, £650, means only, after deducting the expenses of the office, a net income of £350, whereas it is intended by the Act that the remuneration should be liberal, and such as to confer dignity on the office. Dr. Diplock has reason on his side when he says that "it shows a poor estimate of the value of human life to infer that a net salary of £350 a year is ample remuneration for an officer to whose vigilance and care is confided the investigation of all sudden, violent, or suspicious deaths that may occur in a population of nearly half a million, spread over two-thirds of the county." We much fear that his appeal to the public will not help his case. Mr. Cross, in a letter to the coroner, dated Sept. 12th, curtly refuses to add anything to what he had already said on the subject.

DR. WYLLIE, Deputy Surgeon-General of the Indian army, who has been awarded a good-service pension, in the room of Lieutenant-General Younghusband, has been in the Medical Department of the Bombay Presidency thirty-two years, over half of which period he spent at Ahmedabad, in the capacity of civil surgeon. He served in medical charge of the 19th Regiment of Native Infantry, with the Bombay column of the Punjab Army in 1848-49, was present at the siege and surrender of Mooltan, battle of Goozerat and pursuit and surrender of the Sikh army, and in numerous other actions, for which he has several medals and clasps. He served with the Abyssinian force throughout that campaign as field-surgeon, and was present at the capture of Magdala. The present civil hospital at Ahmedabad was built by the exertions of this officer, towards the funds of which he contributed largely. We learn that Dr. Wyllie is a popular and highly-esteemed officer.

THE Poor-law dispensary system, initiated in 1867, has by this time been extended all over the country, and the Local Government Board now express their opinion that the establishment of dispensaries has exercised a most beneficial influence on the administration of medical out-door relief. They consider it an advantage alike to the patient and medical officer. The strictly medical duties are no longer complicated by the labour of dispensing drugs, while the guardians are enabled to keep this branch of relief under immediate control. It is pointed out that, like all other systems, the dispensary system is open to abuse, orders for medical attendance being sometimes issued to persons who are not destitute. With a view to remedying this abuse, some Boards of Guardians have adopted the practice of granting medical relief orders for a month only.

A BAZAAR will be held in a few months for the purpose of obtaining the funds still required for the repairs of the Rotundo Lying-in Hospital, which have been found to be necessary. The committee have removed some small rooms in order to carry out some sanitary arrangements, and have erected a detached building to form a waiting-room for extern patients, with surgery and dispensing-room on the same floor. The upper part of this building will be devoted to apartments for pupils. An extern maternity department, presided over by a paid medical officer, is now added to the hospital, and during last year upwards of 700 women were attended to at their own homes. The amount now required to complete all repairs and alterations is about £600, which we trust will be promptly supplied.

THE sentence passed by Mr. Justice Field on a member of the "Peculiar People," who was charged with the manslaughter of his child by refusing to call in medical assistance, and against whom the jury returned a verdict of "Guilty," should convince the sect that the contravention of laws designed to protect the helpless will not be further tolerated in this country. The judge, while expressing his appreciation of the honest convictions of any man who entertains a religious belief, pointed out that men of all religions were members of the body politic of the State, and the first duty of every Christian was to obey the law of the land in which he lived. He sentenced the prisoner to a mitigated penalty of three months' imprisonment without hard labour. It is to be hoped we have now heard the last of the misguided "Peculiar People."

A SPECIAL MEETING of the Bristol Board of Guardians was held on Monday last, to take into consideration the supply of alcoholic liquors in the workhouse; the medical officers of the board, Messrs. Grace, Norton, James, and Belfield being in attendance. The medical officers were all in favour of continuing to supply stimulants to certain of the inmates, and strongly maintained their contention. After considerable discussion, it was agreed to unanimously, "That having considered the opinion of the medical officers that stimulants are needed in certain cases of work done at the workhouse, this committee recommend the same be continued as heretofore."

THE *Veterinary Journal* has done good service in drawing public attention to the prevalence of rabies canina in the country, and to the fact that the Veterinary Department of the Privy Council takes no cognisance of the contagion. It truly says that the continuance and extension of rabies are due solely to the absence of legislative measures uniformly carried into operation as well as to the ignorance of the public with regard to the premonitory symptoms of the disease in dogs and the prompt treatment of wounds inflicted by them. If the Veterinary Department were to issue some plain simple rules on the subject, we feel sure the public would highly appreciate the measure.

NUMEROUS cases of small-pox and scarlet fever have recently occurred in the Alfreton district, several of which have proved fatal. The local sanitary authority has received a letter from the Local Government Board on the subject, in which it stated that Dr. Beard, one of the Board inspectors, on a recent visit found that nearly all the vaccinations which he examined at Belper had been done by an unqualified person, the assistant of the public vaccinator, although the cases entered in the register were initialed as having been performed by the public vaccinator himself. Naturally enough, the Local Government Board objects to such an arrangement.

A REPORT of the health of York during the last quarter has been issued by Mr. North, medical officer of health. The condition of the town is satisfactory, as is shown by the diminished death-rate, a diminution in infantile mortality being especially observable. There was in the period a slight epidemic of scarlet fever, but the cases were of an extremely mild type, two deaths only being referred to the disease.

THE rate of mortality in London last week was 19·1 per 1000 annually. The deaths, 1280 in number, included 11 from small-pox, 7 from measles, 48 from scarlet fever, 6 from diphtheria, 16 from whooping-cough, 37 from different forms of fever, and 45 from diarrhœa. In the outer ring the death-rate from all causes was 15·8 per 1000.

MUCH indignation is from time to time expended on the supposed cruelty of Boards of Guardians in separating husbands from wives while in the workhouse. As a matter of fact it is seldom that married couples care to live together in the establishment. The clerk of the Luton Union writes to *The Times* to say that fifteen years ago the Luton Guardians set apart rooms in their workhouse for the reception of married people, and singularly enough "those rooms have stood empty up to the present time, no such couples ever having asked for the indulgence thus provided for them."

THE Congress of Public Health and Safety was opened at Brussels on Wednesday last. The following appointments have been made by the English delegates:—President, Captain Douglas Galton. For the section of Hygiene—Presidents, Mr. Chadwick, C.B., and Dr. Richardson, F.R.S.; vice-presidents, Mr. H. Collis and Dr. Hardwicke; secretaries, Messrs. Phene and Pearse. In another section Sir Harry Verney, Mr. Crookes, Surgeon-Major Porter, Mr. Cooke, and Major Burgess are presidents and vice-presidents.

MR. J. LEWIS FARLEY writes to *The Times* to state that he has received letters from the Servian camp at Deligrad affirming that a virulent epidemic, believed to be the plague, is raging among the Turkish troops on the left bank of the Morava. The tents are rigorously burned a few days after their erection, and the new ones by which they are replaced are similarly treated at the expiration of three days. If the disease is the veritable plague, it is easy to see how readily it may spread to Western Europe.

SMALL-POX is increasing in Manchester. Thirty cases were under treatment during the week for which we have the latest returns, and five deaths were recorded in hospital, four of which were unvaccinated. Scarlatina, typhoid, and diarrhœa are also prevalent in the town. Seven deaths from typhus occurred in the Manchester Workhouse Hospital. Erysipelas is subsiding. In one district, that of Ancoats, the mortality has been as high as 35 per 1000 annually, while in Salford it reached 32·7.

IT is rumoured—and the rumour has travelled to this country *viâ* Berlin—that the Colorado Beetle is amongst us, and already doing dire mischief in certain potato-fields of Great Britain. There seems to be some doubt whether the specimens imported for the use of entomologists are not the only invaders. As, however, the introduction of these destructive insects is *possible*, agriculturists and gardeners should be on the alert.

THERE has lately been introduced an improvement in collating the mortality returns of Dublin by the Registrar-General. The deaths in public institutions now, instead of being included in the numbers for the districts in which the institutions are situated, are assigned to the districts from which the deceased were admitted, and the district death-rates are calculated on the mortality so corrected.

OPHTHALMIA has again broken out in the Holborn Union Schools, situate at Mitcham. An inspector, Captain Lockwood, who visited the place last week, is of opinion that a new infirmary should be at once built. The School Committee complain that the medical officer has not visited the establishment for several months.

A SITE has been granted in the Duchy of Saxe-Coburg Gotha for the cremation and subsequent disposal of the dead, and an apparatus is about to be erected by the German Society at a cost of 15,000 marks.

THE small-pox outbreak at Blackburn is subsiding. Dr. Martland, the medical officer of health, reports that the disease is no longer epidemic, and that strangers coming to the town need not now fear infection. We shall be glad to receive a circumstantial account of the outbreak, which cannot fail to be instructive.

A WRITER in the *Chicago Medical Journal* records the successful results obtained in treating enteric fever with sulphurous acid. In thirty cases the acid was given in doses ranging from three to fifteen drops in lemonade every four hours. Of the number one patient only died, a delicate girl with advanced phthisical disease.

THE *Dublin Journal of Medical Science* for this month contains an interesting paper by Dr. A. Wynn Foot, entitled "Notes on Facial Paralysis." The cases described illustrate some of the severer varieties of the disease as it affects the whole of the fifth nerve and one or more of its branches.

CHOLERA has broken out with great violence in Jummoo, the capital of Cashmere. The inhabitants are flying into English territory. The disease is also very prevalent in Rawul Pindi, Lahore, and Bareilly, in which latter place there have been some fatalities among the troops.

MR. ANDERSON KIRKWOOD, of Glasgow, has been accepted as the Liberal candidate for the representation of the Universities of Glasgow and Aberdeen, and has issued his address to the electors.

YELLOW FEVER continues to rage with great severity at Brunswick, a seaport town of Georgia.

ANATOMY AND PHYSIOLOGY IN OWENS COLLEGE.

ON Friday, Sept. 8th, in the Department of Anatomy and Physiology at the British Association, a series of papers was read by Professor Arthur Gamgee, M.D., F.R.S., of Owens College, Manchester; and Mr. John Priestley, Assistant Lecturer on Physiology in the same institution; embodying the results of investigations carried on in the Physiological Laboratory of Owens College during the last year.

The first paper, by Mr. Priestley, entitled "A Summary of a Research on the Physiological Action of Vanadium," contained a summary of a very elaborate investigation, which is about to be printed *in extenso* in the Philosophical Transactions. Vanadium, as the author pointed out, belongs to the pentad group of elements, which includes nitrogen, arsenic, phosphorus, antimony, and bismuth; it possesses an atomic weight which is nearly the mean of that of arsenic and phosphorus. The researches of Mr. Priestley have demonstrated that vanadium is a powerful poison, exerting a strong irritant action on the gastro-intestinal mucous membrane, but possessing, in addition, remarkable activity as a poison of the spinal cord, the medulla oblongata, and the heart. Mr. Priestley has examined with great care the influence of vanadium upon the circulation, and has shown that this poison paralyses the vaso-motor centre; that it does not affect the functions of the vagus as a cardiac inhibitory nerve, but that it exerts an action upon the intrinsic nervous mechanism of the heart. According to Mr. Priestley, vanadium is not a muscular poison, and it does not lead to any change in the functions of nerve-trunks.

The paper which followed, entitled "On the Action of Vanadium upon the Intrinsic Nervous Mechanism of the Frog's Heart," was by Professor Arthur Gamgee, and Mr. Leopold Larmuth, a pupil in the Physiological Laboratory of Owens College. Dr. Gamgee, at whose instigation and under whose direction the research by Mr. Priestley had been carried out, thought it well to institute a careful examination of the action of vanadium on the heart, and with this object very elaborate experiments upon the mode in which the poison affects the frog's heart were instituted. The method employed in these experiments was that known by the name of Ludwig and Coates'. It consists in connecting the separated heart of a frog, on the one hand, with a reservoir containing fresh rabbit's serum, and, on the other, with a mercurial guage, the movements of the mercury of which are recorded on a blackened rotating cylinder by a light float, which rests upon the surface of the mercury. When fed in this way, the heart of a frog will go on pulsating and recording its movements for many hours. In the experiments with vanadium, the authors first of all took tracings of the action of the heart when fed with pure rabbit's serum, and afterwards substituted for the latter the same serum mixed with sodium ortho- or pyro-vanadate. They found that, as a result, the ventricle almost immediately stops beating, whilst the auricles continue to pulsate, though more slowly and feebly, for a long time afterwards. The ventricle is always firmly contracted at the time of stoppage, though often it becomes relaxed at death. The authors observed that when the ventricle had been stopped by vanadium, excitation of the vagus, whilst it inhibited the yet beating auricles, was without effect upon the ventricle, which still remained contracted. Atropia in no way modified the action of vanadium. Dr. Gamgee pointed out that in some respects the action of vanadium resembled very closely that of digitalin, veratria, and antiar, but that it differed from all these poisons in some important respects, especially in the effects which followed excitation of the vagi. He discussed the question as to whether vanadium acts on the heart as a muscular poison or as a poison of the nervous mechanism of that organ. He argued that it exerted a double action on it, as he argued this double action for digitalin, veratria, and antiar. How can we, he urged, explain the stoppage of the action of the ventricle, and the continuance of the pulsation of the auricles, if these poisons are merely muscular poisons? Why are the muscular elements of the thin-walled auricles not affected as readily as those of the thicker ventricle? In his remarks Dr. Gamgee deprecated the tendency to alter our scheme of the intra-cardiac nervous mechanism in order to explain the action of every new cardiac drug.

The third paper was by Mr. Leopold Larmuth, and treated of the poisonous activity of vanadium in ortho-, meta-, and pyrovanadic acids. This research led to the curious result that vanadium does not possess the same poisonous intensity in different, closely-related compounds. The same weight of vanadium is much more poisonous when existing as pyro- than as orthovanadate of sodium, whilst the metavanadate is intermediate in its action.

In a fourth paper, Professor Arthur Gamgee, Mr. Priestley, and Mr. Leopold Larmuth, gave the results of researches on the sodium salts of ortho-, meta-, and pyro-phosphoric acids. When it had been discovered that vanadium exerts a more poisonous action as pyro- than as ortho-vanadic acid, it was determined to investigate the corresponding phosphorus acids. Of these only the common, or, as it is termed, ortho-phosphoric acid had been examined before.

The experiments performed under Dr. Gamgee's guidance have shown that sodium orthophosphate, $Na_3 PO_4$, is physiologically an inert substance. Even very large quantities of solutions of this salt injected directly into the circulation of rabbits failed to produce any appreciable result. Meta-phosphoric acid and its sodium salt is a decidedly active substance, but not nearly so poisonous as pyrophosphoric acid and its sodium salt. Pyrophosphate of sodium possesses a physiological action which closely resembles that of vanadates. When introduced subcutaneously into the system of frogs it leads to paralysis of voluntary motion, to cessation of respiration, and soon to a stoppage of the heart. The reflex functions of the spinal cord are very soon affected by the poison, which has no action on the irritability of muscles or nerves. The authors made a specially careful investigation into the action of pyrophosphoric acid on the circulation, which led to the result that this poison acts almost exactly like the vanadium compounds.

In a fifth paper, entitled "Observations on the Physiological Action of Chromium," Mr. Priestley gives the results of an elaborate study into the action of this element as a poison of the circulation. This investigation shows that

chromium, to which vanadium was at one time supposed to be chemically related, exerts a very different action from that of vanadium.

Dr. Gamgee then gave the account of a series of experiments made at his suggestion, and under his direction, by H. G. Brooke, B.A. Lond., and E. O. Hopwood, B.A. Christ Church, Oxford, Platt Exhibitioners in the Physiological Laboratory of Owens College, on the changes in the circulation which are observed when blood is expelled from the limbs by Esmarch's method. It occurred to Dr. Gamgee shortly after Esmarch's method had come into use in England, that it would be interesting to study the changes in the pulse of individuals whose limbs are compressed by Esmarch's method. He seized the opportunity of the presence in Manchester of Dr. Paul Albrecht, Professor Esmarch's former assistant, to commence the experiments, which have been continued by Messrs. Brooke and Hopwood. The experiments were performed on a number of perfectly healthy young men. In each experiment, the individual under operation being stripped and reclining in bed, sphygmographic tracings of the radial pulse were taken. Then Esmarch's elastic bandage was applied to one lower extremity, the pulse being carefully observed the whole time, and after the limb had been completely bandaged, another set of sphygmographic tracings was taken. The other limb was then bandaged, and a third set of tracings taken. At a given moment the blood was allowed to return into the limbs and careful observations made. All the observations have led to the same results. It appears that the expulsion of blood from the lower extremities is always accompanied by a quickening of the pulse; the heart, however, does not continue to beat quickly for any length of time, for it soon returns to its normal rate. The sudden loosening of the bandages also always leads to a quickening of the heart, which, however, very rapidly becomes as slow as normal. This quickening is most marked in the fifteen seconds which immediately follow the removal of the impediments to the circulation, less marked in the succeeding fifteen seconds, whilst it may be no longer perceptible a minute after. How can the initial quickening of the heart, when the limbs are first compressed by Esmarch's bandage, be explained? Before attempting an explanation, Dr. Gamgee analysed the changes which must be produced in the limb. Esmarch's method will, he maintained, expel more venous than arterial blood from the limb, because the area of the veins is greater than that of the arteries; it will, no doubt, expel from the compressed tissues much of their capillary blood; it will, too, expel a considerable quantity of lymph. It was pointed out that the blood sent out from the arteries of the compressed limb, and added to that contained in the arterial system, would affect the pressure of the blood throughout the whole arterial system, and, therefore, the rise of pressure in it would not be as great as in the venous system; in the case of the latter the blood expelled from, say one lower limb, would affect the pressure of the blood contained, not in the whole venous system, but in that portion unprovided with valves. For this reason, then, as well as because the quantity of blood contained in the veins is greater than that contained in the arteries, and because the contents of the venous system have the lymph of the compressed lower extremity added to them, the authors maintain that the result of the application of Esmarch's bandage will be to increase temporarily the blood pressure in the right side of the heart more than that of the left side—i.e., to diminish the normal difference which exists between the pressure of the right and left sides; they believe that the effect of such an increase of pressure in the right side will be, in this, as in some other cases, to cause the heart to beat more quickly; as soon as the normal difference in pressure has, however, become re-established, the heart will return to its normal rate. The quickening when the limbs are suddenly unbandaged is more easy to explain. Whilst the effects of increased vascular pressure on the heart are more variable, we know that a sudden fall of arterial pressure does lead to the heart beating more quickly. According to Dr. Gamgee and the authors of this paper, both the initial and final quickening of the heart observed in their experiments are due to the same cause—viz., to a temporary diminution of the normal difference which exists between the arterial and venous pressures.

Professor Kroenecker, of Leipzig, who took part in the debate, expressed his sense of the value of these new experiments, which would probably throw considerable light on a subject which is far from being elucidated. He thought the influence of the lymph expelled from the compressed limbs upon the composition of the blood on the right side of the heart ought not to be lost sight of, as very slight variations in the quality of the blood might influence in a remarkable manner the character of the heart-beats.

Correspondence.

"Audi alteram partem."

DISEASED BONES IN THE INSANE.

To the Editor of THE LANCET.

SIR,—In an annotation in your last number on the recent "Death in a Lunatic Asylum," you conclude by stating that the condition of the bones in the insane requires further investigation, and that you intend to return to the subject on a future occasion. I therefore venture, as a contribution to the point under discussion, to remind you that the late Dr. Ormerod, F.R.S., and myself went into the question about six years ago; that Dr. Ormerod published a paper in the St. Bartholomew's Hospital Reports (vol. vi.); that I recorded two cases in THE LANCET for Sept. 3rd, 1870; and that at the quarterly meeting of the Medico-Psychological Association, held on January 22nd, 1873,* I read a paper "On the Softening of the Bones in the Insane," exhibiting specimens of the same, which led to a very interesting discussion. The morbid specimens I showed were all ribs, and were ten in number, taken from ten different patients who had died in this asylum during the previous four months. This led me to infer that *nearly half the chronic insane have bones more or less diseased*, and I went on to state that I presumed this was due to feeble health and exhausting bodily disease rather than to the mental symptoms. A rough analysis of some of these bones showed that in most instances, contrary to the normal state, the animal matter much exceeded the earthy, and the walls of many were so brittle that they could be crushed in between the finger and thumb. Indeed, the marvel appeared to be, not so much that the ribs of the insane were occasionally fractured, as that violent excited cases should ever escape without injury more or less severe.

To all interested in this subject I would strongly recommend the paper of Dr. Ormerod already referred to.

I am, Sir, yours faithfully,

S. W. D. WILLIAMS, M.D.,
Medical Superintendent, Sussex Lunatic Asylum, Haywards Heath.

Sept. 25th, 1876.

* See Journal of Mental Science, vol. xix., p. 160.

CHLORIDE OF LEAD AS A DEODORISER.

To the Editor of THE LANCET.

SIR,—On the 11th of December last I was allowed to ventilate the subject of the use of lead chloride as a deodoriser, with directions for its practical use, and I am pleased to find that it has been extensively tried, and found as satisfactory as I had stated that it would be.

I expected that it would meet with criticism and objections, though I find none from anyone who has tried it, and I should be only too glad to hear any reasonable objection by anyone capable of throwing any light upon the subject, as I have no wish to establish a theory, but to call the attention of my medical brethren to a fact which, if true, must be universally accepted, and will be of great value to them in particular, and universally to the public; for what can be more desirable, in a sanitary point of view, than to be able, at will, to establish a pure atmosphere with little trouble, no expense, and perfect safety? All other objections but the last may be easily tried by experiments, but the safety has been a matter of so much anxiety to me that it was not till after many years of anxious observation and experiment that I ventured to propose it for general use, though I think the problem was pretty fairly worked out on scientific as well as practical grounds. The

prejudice against lead is a reasonable one, lest any error in manipulation should set free even a very small quantity in a soluble form; but if my directions are fairly carried out by weight and not by measure, or the rule of thumb, such an accident is physically impossible. I may state that I have now a stone tank in which I have a fine perch, three gudgeons, three carp, and some other river fish, and two frogs, which have been swimming about in the lead chloride solution for the last seven days, and all in perfect vitality, and none the worse for it. A butcher's dog, in the town in the neighbourhood of where I am staying, has for the last six months been drinking out of a pailful of the fluid which is kept at the door of his slaughter-house, and is perfectly well; and a lady of my family drank some of the solution, which had been put into a bottle with the label of fluid magnesia upon it, and the only effect it had was to relieve her from flatulent distension, for which she took the draught. But I do not propose that experiments should be tried upon the human subject before we have more experience than we have at present, though it may turn out to be a very useful remedy in cases of excessive tympanites.

I wish also to call the attention of practitioners to the sediment formed in the mixture of the solution. That is only due to the presence of bicarbonate of lime in the water. It is thrown down as a carbonate. When distilled or rain-water is used, there will be no precipitate. There may be a slight quantity of lead carbonate, so that I have directed that it be thrown away and not used, but in sewers it would be converted into the insoluble sulphuret. The Thames water contains a very large quantity of the lime, and I regret to say an enormous quantity of organic matter, as tested by the permanganate; and the refuse from the paper-mills flowing into the river poisons the fish to a large extent. The lead nitrate is used now in several districts of England, introduced by sanitary officers in country villages and towns, and in several Board Schools. In this neighbourhood a chemist prepares powders of nitrate of lead, half a drachm, and two drachms of salts, which he sells to the clergy and farmers and others at a shilling a dozen, and he has such a demand for them and orders from the country that he has to work all hands to keep up the supply. The surgeons and the clergy carry them about in their pockets for ready use, and find them answer the purpose. A little powdered charcoal is put in the lead paper to prevent its being mistaken for seidlitz.

Your obedient servant,

Sussex-gardens, W. R. H. GOOLDEN, M.D.

MEDICAL EDUCATION AT CAMBRIDGE.

To the Editor of THE LANCET.

SIR,—Having graduated at Cambridge as a non-collegiate student, I have necessarily acquired some knowledge of the expense of residence in Cambridge as such, and of the working of the non-collegiate system. It was with regret that I noticed in the Rev. R. B. Somerset's recent letter a tendency (unintentional, no doubt) to give an erroneous idea of the real cost to medical students of the 'Varsity course, this danger being considerably increased by the writer's official position having given him ample means for forming a correct judgment on all points connected with the non-collegiate society. I have more than once heard men complain that they had been misled by statements showing how the entire cost of obtaining a Cambridge B.A. degree need not exceed £150; whilst, after a term or two, they have found that *to them* it was impossible, and that, *ergo*, they were either committed to a much greater expenditure than they had calculated for, or must relinquish the University, and thus throw away both the time and money already spent. It is usual to state that a Cambridge undergraduate requires about £120 a year if in college, and £50 or £60 if a non-collegiate student. Now, it is evident that either the college charges are excessive, or that matters are misstated. I think that the latter is the case, for although in college a man will have to pay about £15 a year more for tuition than the average non-collegiate does, his other college dues will not amount to more than £10 a year, whilst a non-collegiate must pay £5 5s. per annum to the Board; thus £20 a year will cover the entire difference of cost in fees between being in college and out. The next principal item of difference is dinner, which may be said to cost the college man 2s. 6d. a day, whilst the non-collegiate can do without altogether if he likes. In other meals there need be no difference, and charges for attendance &c. will be the same. Altogether £10 a term is quite as much as it need cost a man more to be in college than to live as a non-collegiate. £120 a year is considered a moderate allowance for a collegian, and if the above results of my observations are correct, £90 will not be out of the way as an estimate of what an unattached student requires; yet it is commonly stated that a man may graduate at Cambridge for £150. Well, Sir, I quite think he may, and even get that professional instruction which Mr. Somerset does not include in his £150, but which surely no sane medical medical student would omit. I will show how this may be accomplished; but I must state first of all that there is no hope of high honours at this price, for a good place in a tripos means, as a rule, £60 or £80 spent in coaching, and £150 will not afford any coaching (even for the ordinary examinations) or the preparatory lectures which for moderate fees are open to unattached students at various colleges. The man who is to graduate on £150 should be well up at least in the "little go" subjects prior to entrance, and if he has any books he must take them with him (it will help matters considerably if he will sell every book as soon as he can spare it. He ought also to be a good hand at borrowing books). He must buy no clothing in Cambridge, nor reckon his travelling expenses as part of the cost of his degree, any more than he would charge for living &c. during the vacations. Then he must make up his mind that he is not to be "ploughed" in any examination, as in such cases the fees are repeated. And he must take his degree in June (unless an honour man), or it will cost him £3 10s. more than we can allow for. He must also shut up his bowels of compassion and give not a cent. to any of the numerous charitable collections, whilst an utterly deaf ear must be turned to all solicitations to join cricket, football, boating, or other clubs, as he will not have a shilling to spare for recreation; and, finally, as he cannot afford more than the very minimum of residence, he must pay no attention to the advice of such men as Professor Humphry, who urge medical students to stay up during the entire term and part of the long vacation. £32 19s. will go for fees to the Board and University—i. e., £15 15s. to the Board, £2 11s. Capitulation Tax, 15s. Matriculation fee, £2 10s. previous examination fee, £1 5s. general examination fee, £3 3s. to the Registrary for professional certificate (this, through want of a kindly word of caution, has often to be paid twice), and £7 fee for degree. (Mr. S. says £10 a year will meet all this.) £49 will be required for instruction, books, &c.; without allowing a penny for coaching or "little go," or "general" lectures—viz., £15 15s. for attending hospital, £6 6s. anatomy and physiology, £6 for dissecting purposes, £3 3s. each chemistry, materia medica, and the principles and practice of medicine, £1 1s. each for botany and comparative anatomy; whilst £10 is not a large allowance for books, stationery, and instruments. This will leave only £67 9s. for household and personal expenses—i. e., about £1 a week; and as he will be very fortunate if he obtain rooms, fire, lights, and attendance for 15s. a week, he must live on 5s. a week. Of course a divinity student can manage much better on the stated amount than it is possible for a student of medicine to do, as his expenses under the second head are considerably lighter than those above stated; but on £150 even his diet would be limited, and his life would have to be somewhat like that of a recluse, otherwise he would feel perpetual pecuniary pressure, and that continual concern about coppers which worries a man, and is far from conducive to intellectual progress. I think that to be at all sociable, and to live in anywise comfortably, any non-collegiate student requires £80 a year, and that a medical non-collegiate student cannot be happy at Cambridge on less than £100 per year.

Apologising for trespassing so far on your valuable space, I am, Sir, your obedient servant,

W. H. BLACKETT CROFTS.

Kettlewell, Skipton, September 25th, 1876.

P.S.—It will be observed that in the above no account has been taken of the cost of the academical costume, comprising at least one cap, two gowns (undergraduate's and bachelor's), and a hood, costing altogether, say, £3 10s.

REPRESENTATION OF THE MEDICAL PROFESSION IN PARLIAMENT.

To the Editor of THE LANCET.

SIR,—May I call your attention to the position of the medical profession in the House of Commons?

At present there are in the House more than one hundred and twenty barristers, and about one hundred officers in the army. Even the anti-vaccinators have their representative, while there are only about six medical practitioners, and of these perhaps one only, Dr. Lush of Salisbury, is a man of professional celebrity.

Among the subjects that will have to be dealt with by Parliament in the next few years are the management of prisons, the treatment of habitual drunkards, vivisection, the further restriction of the pollution of rivers, the opposition to compulsory vaccination, and the position and qualification of coroners.

On all these subjects the opinion of a leading medical man would be of great importance. Many persons would read and accept a speech made in the House who care little for medical opinion now. For instance, a statement about vaccination that had been listened to in the House of Commons might go far to put an end to the present Anti-vaccination League.

Again, there is need of every inducement to lead talented men to choose the medical profession, and to accept a country practice, while I believe the fact is that the number of men entering the profession is falling off. There are other professions in which it would apparently make very little difference to the public if their members were men of moderate ability only, but in medicine we want all the talent that we can obtain. Now at present the office of coroner may be considered as a reward open to medical men who for the most part divide the office with solicitors, but there is a proposal to confine this post to barristers and solicitors, members of a profession which is generally thought to be able to take care of itself. Were there a few more medical men of standing in the House of Commons, they might put things in a different light. I cannot but think, if it were known that some of our leading physicians and surgeons were desirous of entering the House of Commons, at a time when their presence there would be of great importance, that the chance would be given them.

I will add that I am not myself a medical man, nor am I related to one.

I enclose my card, and am, Sir, yours obediently,

Clifton, Bristol, Sept. 26th, 1876. T. R.

DAVOS AND THE ENGHADINE.

(*From our Roaming Correspondent.*)

I HAD occasion in my last letter to allude to what I dared to call the present "fashion" of treating consumption by sending patients to reside at great heights above the level of the sea. Since then I have been residing at Davos am Platz, which is perhaps the most frequented by *poitrinaires* of all these high climatic health resorts, as well as in other parts of the neighbouring valley of the Enghadine. I do not propose to discuss or to express any very definite opinion on the difficult question of what, on theoretical grounds, ought to be the effect on consumptive patients of living in very elevated mountain situations; but perhaps one may be allowed to mention one or two of the more obvious phenomena presented by the climate, and the results on individuals of sojourning therein. The height above sea-level is between 5000 and 6000 feet, and the barometer stands at about an average of 620 millimetres instead of 760, which is its average height above the sea-level, so that the weight of the atmosphere is only $\frac{620}{760}$, or rather more than three-fourths of what to most of us is its normal weight. One result of this is that under the influence of the sun's rays evaporation is marvellously rapid. The dew is gone in an instant, and the vapours of the early morning seem to vanish at the first touch of the solar heat. Thus it follows that, although the rainfall is considerable, the dryness of the air is, for practical purposes, and during the main part of the day, nearly absolute. The range of temperature is apt to be very great, and the thermometer, even in the height of summer, is frequently below freezing-point in the early morning and in the shade, while in the sunshine towards mid-day the heat is simply scorching. For the most part, however, the temperature is very pleasant in summer, and even invalids, if properly provided with wraps, may spend almost all the hours of daylight out of doors. In winter at Davos the cold is, of course, very intense at times, and the thermometer not unfrequently stands very far below zero; but even this is compensated for by the mid-day sunshine, the almost entire absence of wind, and the complete want of anything like fog.

The obvious results on a healthy person of living in such a climate are—(1) a slight increase in the rate of pulse and respiration; (2) a craving for, and an ease in performing muscular exercise; and (3) a marked increase of the appetite with a general feeling of exhilaration. The air acts in fact as a powerful general stimulant. Ladies and those who are not able to take much exercise, often have a difficulty in sleeping, but this is never of long continuance. Owing, it is said, to the diminished atmospheric pressure, the cutaneous vessels dilate, and the complexion becomes exceedingly ruddy—a fact which is particularly noticeable in the inhabitants, whose red cheeks strike a stranger with astonishment. The red ribbons worn by the waitresses at Davos looked very much "washed out" when compared with the complexions of those whom they adorned.

Dr. Spengler, the physician at Davos, tells me that young consumptive patients, in the early stages of the disease, and provided they have a fair amount of strength, do very well in this climate, and are benefited by staying here in the winter. Indeed my main object in writing this paper is to bring under the notice of those readers of THE LANCET who may be about to send patients to the Enghadine, the admirable arrangements for patients which are to be found in M. Holsboer's Kurhaus at Davos am Platz. It is obvious that consumptive patients, if they are to derive all the benefit possible from residing in high altitudes, must also be protected from the occasional terrible severity of the weather, which is inseparable from such a situation. Have any of my readers ever stopped in an ordinary Swiss hotel during really cold, bad weather? If so they have made acquaintance with downright misery, and the maximum of discomfort. In his kurhaus, M. Holsboer has tried to anticipate all the needs of the invalid, and from a sojourn in it of ten days, during bad weather in summer—snow, wind, rain—I can confidently speak as to the efficacy of some of the arrangements.

In primis I would say that the establishment (capable of accommodating some 130 persons) is well built. The walls are thick, the wood is well seasoned, and the doors and windows fit accurately. It is placed on the slope of a hill, with its main frontages looking east and west. The Davos valley, which is wide and luxuriant, is protected from wind on every side; and M. Holsboer explained to me that his house was so built that every room in it may get some of the sun. "You cannot," he properly remarked, "have a big south frontage without one equally as large to the north, and as I wanted the establishment to succeed financially, I could not build rooms which no one would occupy." All the windows are double, and they are so made that the top panes open louvre-fashion, so that in all weathers ventilation is possible. Again, every room in the house is warmed by hot water, which is under the control of the occupier, and can be regulated by himself or his medical attendant. The waterclosets are capitally arranged, and well ventilated after a method suggested to the proprietor by M. Lienur. The rooms are well designed, and, while comfort is everywhere noticeable, any reasonable degree of luxury can be had by paying for it. The social arrangements are truly admirable. The dining-room, drawing-rooms, ladies' drawing-room, reading-room, and billiard-room are all *en suite*, and are remarkable alike for tasteful decoration and comfort. The cuisine is first-rate, and well suited for delicate people, and the meals are served with a military punctuality. The amusement of the guests is provided for in various ways, and, during the winter, concerts, theatrical entertainments, and similar amusements

serve to wile away the time. I must not forget to mention the complete suite of baths for the use of the patients nor the picturesque dairy or "Milch Halle," where those who are so advised may go and drink milk "hot from the cow." In addition to the main building there are three or four villa dependances, where visitors can be accommodated. In short, I may say that M. Halsboer's arrangements are all admirable. He has evidently spent upon them not only money, but an immense amount of thought, and if I had once made up my mind to send a patient for the winter to a locality 5000 feet above the sea, I should have little hesitation in selecting the Kurhaus at Davos as in every way a suitable habitation.

Davos is easily reached by diligence, either from Chur or from Landquart, a station on the same line of railway a little to the north of Chur. The journey in either case is accomplished in about seven hours, and the drives are among the most beautiful in Switzerland.

The more extensive and better known valley of the Enghadine, lying parallel to and a little south of Davos, has become of late years too renowned as a health resort to make it necessary for me to trouble the reader with any lengthened remarks. The chief advantage it enjoys is undoubtedly its wonderfully agreeable and exhilarating climate, which proves an attraction to thousands of visitors, who return here as regularly as the year comes round. The Enghadine, however, boasts of several mineral springs, some of which were known to Paracelsus, and it is to the springs especially that we would make a brief allusion. The most potent water, perhaps, is that of Tarasp, in the Lower Enghadine, not far from the Tyrolese frontier. Here is an enormous kurhaus, whither Germans repair in shoals to "undergo a cure"; and it is a fact worthy to be borne in mind that the diet of the guests is very strictly attended to, and that butter, cheese, salad, and strong condiments are not obtainable. The water is of complicated composition, and contains 147·5 of dissolved salts in every 10,000 parts. The most important of these constituents are carbonate of soda (48·7 parts), chloride of sodium (36·7), sulphate of soda and potash (25), bicarbonate of magnesia (9·7), bicarbonate of iron (·214), and bicarbonate of lime (21·4). It is rich also in free carbonic acid.

Dr. J. Braun, the well-known writer on Balneology, says of this water:—"The springs of Tarasp, known for centuries, have of late acquired a great renown. All things concur to make this establishment one of the most interesting and most frequented; for the waters of Tarasp are in all respects superior to those of Carlsbad and Marienbad. They contain nearly the same dose of sulphate of potash as Carlsbad, but their dose of chloride of sodium is nearly three times as strong, as is that also of carbonic acid. As regards sea-salts, they are contained in it as in Kissingen water, but in a less proportion; and, in fact, one could say that the waters of Tarasp unite the curative virtues of Carlsbad and Marienbad to those of Kissingen, and surpass Vichy in the amount of carbonate of soda."

These waters are evacuant and alterative, and are chiefly useful for dyspepsia and congestion of the liver. The neighbourhood is surprisingly beautiful, but the kurhaus is badly situated in a deep gorge of the Tron river, so that I should advise visitors to go rather to the neighbouring village of Vulpeau or to Sals. Tarasp water is exported in great quantities.

At the other end of the Tron valley, towards the Italian frontier, in what is known as the Upper Enghadine, is St. Moritz, where is to be found another celebrated mineral spring. Here, too, is a kurhaus, bigger, if possible, than that at Tarasp, and much better as to situation. St. Moritz seems to me in every way preferable to Tarasp as a residence, and the large number of hotels and the great energy with which building is being prosecuted, show that this fact is very generally appreciated. As for the water, it is most agreeable, sparkling with carbonic acid, and containing a small quantity of iron, which is of service to anæmic subjects. There is also a small quantity of sulphate of soda, and a rather larger amount of carbonate of lime. Combined with the marvellously beautiful climate of St. Moritz, the spring is capable of acting beneficially upon many classes of invalids and convalescents; but looking to the analysis alone, I should be inclined to doubt its great power if divorced from the air which is necessarily taken with it.

THE INTERNATIONAL MEDICAL CONGRESS, PHILADELPHIA.

(From our own Commissioner.)

THE International Medical Congress terminated its eminently successful meeting on Saturday evening last. Steady attention to the work allotted to the Congress and its sections was uninterrupted throughout the week, though each evening found the vast number of delegates the guests of their most hospitable brethren in Philadelphia. Drs. Ellwood Wilson, William Thompson, and Strawbridge, each entertained the entire Congress; as did also Mr. Henry C. Lea and Mr. J. B. Lippincott, the well-known medical publishers. On Friday evening the American members of the Congress gave a dinner to the foreign delegates, which afforded an opportunity for the frankest expressions of the satisfaction which all had experienced in attending the centennial meeting. But any notice of the work done in the sections, and of the general business of the week, must be postponed until next mail.

Yesterday the International Ophthalmological Congress opened its session in this city. Dr. Williams, of Cincinnati, was elected the President. Some seventy new members of Congress were elected, and in their election considerable scrutiny was exercised to exclude any practitioner whose conduct was not conducive to the maintenance of a high standard of medical ethics. Amongst the papers read before the meeting yesterday there was one by Dr. Gowers, of London, "On Chronic Optic Neuritis," communicated by Mr. Macdonald McHardy. In the evening the members of the Congress met at a social party in the house of Dr. Agnew. Dr. Herman Knapp will entertain the Congress to-morrow evening; and on Thursday the American Ophthalmological Society will give a dinner to the foreign members of the Congress.

Philadelphia, Sept. 14, 1876.

Obituary.

THOMAS LAYCOCK, M.D.

DR. LAYCOCK was sprung from a good Yorkshire family, and was born in that county, in the town of Willerby, in 1812. He received his early education at a Wesleyan school, where he laid the foundation of a good working knowledge of the classics, and thereafter commenced the study of medicine at the University of London, from which he passed to Göttingen, where he graduated. From the first he showed a distinct aptitude for psychological study, and his favourite reading at leisure hours was (as he once told the present writer) the Cambridge Platonists, particularly Cudworth. In Germany he became acquainted with the writings of Unzer and Prochaska, and afterwards brought them before the English public in translations from the original German and Latin, executed for the Sydenham Society. Devoting himself with almost passionate zeal to the study of the nervous system, he wrote his ingenious work on the "Nervous Diseases of Women," which was published in 1841. In or about the same year he also drew up a scheme of State Medicine, which was highly commended at the time for the breadth and grasp of its views. These and other writings brought him acquainted with the late Sir John Forbes, editor of the *British and Foreign Medico-Chirurgical Review*, and Sir John secured his co-operation as a contributor, in which capacity Dr. Laycock wrote many able and original articles, and many incisive criticisms on contemporary medical literature. In 1844 he read a paper before the British Association on "The Reflex Function of the Cerebrum," a subject to which he dedicated special study ever after, and continued to write upon it till within a few weeks of his death (*Vide Revue Scientifique*, September, 1876). While acting as a consulting physician at York, he lectured on clinical medicine at the York school, and with such success that when, in 1845, Dr. W. Pulteney Alison vacated the Professorship of Practice of Physic in the University of Edinburgh, Dr. Laycock, after a severe and rather embittered contest, was

chosen as his successor. He had the powerful support of Sir J. Forbes and the late Sir J. Y. Simpson, Scotchmen whose recommendation of him was valuable at a time when the local spirit was adverse to re-enforcing the professiate from schools south of the Tweed. As a lecturer he excelled in the University chair perhaps more than in the infirmary wards, though in the latter his diagnosis was always sound, often very acute, and his therapeutics judicious. In his class-book, entitled "Medical Observation and Research," he rather widened the field beyond the limits to which it had been narrowed, and called attention to the etiology of disease, and its expression in departments of pathology too often neglected.

In 1861, for the lectureship of Medico-Psychology which he founded in the University, he wrote his "Mind and Brain, or the Correlations of Consciousness," the work not only of an accomplished physician, but of a skilled and versatile man of letters. Here again his researches in unconscious cerebration appeared to conspicuous advantage, and the charm which he threw around the study drew numbers of other professions besides the medical to his theoretical courses, and even to his clinical prelections. He contributed actively and ably to many of the leading organs of contemporary criticism, particularly the *North British Review*, and earned a high reputation, far beyond the walls of the University, as an enlightened and public-spirited physician. He was of a very genial nature, and very kind to his pupils, and commanded their respect by his frankness in accepting criticism, and his readiness to explain whatever difficulties they propounded. There have been many more popular lecturers than Thomas Laycock in Edinburgh University, but there have been few who so loyally kept up "the complete professional mind," and who so constantly recognised the dignity of the medical calling as something more than a narrow specialism.

Dr. Laycock suffered a good deal of domestic and personal affliction; the loss of his accomplished wife being followed by a severe illness which ultimately assumed a form which rendered necessary the amputation of the leg. He retained his genial equanimity, however, unimpaired to the last, and he will long hold a cherished place in the affections of the pupils who could appreciate his many accomplishments and feel grateful for his enlightened tuition.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on Sept. 21st:—

Bennett, Arthur, Stawell, Victoria, Australia.
Rule, George Fredk. Henry, Elgin-crescent, Notting-hill.
Todd, Howard Jas. M'Cheary, Kennington-road, Lambeth.

The following gentlemen passed the Primary Professional Examination on Sept. 14th and 21st:—

Robert Edward Clitherow, King's College; Arthur Hodge, University College; Horace Elliott, Westminster Hospital.

DR. JOHN T. D. HUGHES, the deputy-coroner, is a candidate for the vacant coronership of the county of Anglesey.

SEWAGE FARMS.—It has been reported to the West Derby Local Board that the amount of money expended on their sewage farm up to March last was £62,144, and the loss to the rates nearly £16,000.

PRESENTATIONS.—Mr. Charles Willcox, upon removing from Wareham to Southsea, has been presented with a purse of sovereigns and a handsome chased silver salver, inscribed, "Presented to Charles Willcox, Esq., M.R.C.S. and L.S.A., with a purse containing four hundred sovereigns, as a token of esteem and regard, by the inhabitants of Wareham, the Isle of Purbeck, and others, among whom he practised forty-three years."—Dr. Charles D. Allen has been presented with a very handsome urn and salver by his friends at Glenarm on his having been appointed medical officer for the Bagenalstown Dispensary district in recognition of his valued services during his residence amongst them.—Mr. James Hadaway, of Welbeck-street, has been presented with a handsome and costly black marble clock, as an acknowledgment of the value of his services for the past twenty-one years to the Court 2274 of Odd Fellows.

IMPROVEMENT SCHEME FOR LEEDS.—Dr. Goldie, medical officer of health for Leeds, has asked the town authority to appoint a sub-committee to consider certain clauses which he is anxious should be placed in the Leeds New Improvement Bill about to be drawn up. These clauses relate to (1) the need of better powers for the detection of infectious disease; (2) better powers for their isolation; (3) that greater powers be granted sanitary authorities over the building of dwellings, and more especially their proper drainage, for such important works should not be left to builders and contractors to complete as they may alone deem sufficient; (4) that the sanitary authorities be granted powers to order certain methods of conservancy in certain places as they may deem best suited to the situation; (5) that regulations be framed for the supervision and control of dairies.

BEQUESTS ETC. TO MEDICAL CHARITIES.—The East London Hospital for Children has received £1000 under the will of Mr. Thos. Hubbuck. Mr. Thos. Marrian, of Maltby, has given £1000 each to the Sheffield Infirmary, the Sheffield Hospital, and the Rotherham Hospital. Mrs. Marian Nasmyth, of Westbourne-park-terrace, bequeathed £6000 to St. George's Hospital, and £5000 to University College Hospital. The trustees, under the will of Sir James Campbell, of Stracathro, have paid £1000 to the Royal Infirmary, £1000 to the Western Infirmary, £250 to the Eye Infirmary, and £250 to the Ophthalmic Institution, all at Glasgow, £250 to the Brechin Infirmary, and £250 to the Montrose Infirmary. Miss Lathbury has given £500 to the Suffolk General Hospital, Bury St. Edmunds.

Medical Appointments.

AITKEN, J., M.D., L.R.C.P. & L.F.P.S.G., has been appointed Surgeon to Messrs. Merry and Cunningham's Iron-works and Collieries at Rankingstane and Drongan, near Ayr, N.B.

ARMISTEAD, W., M.B., C.M., F.C.S., has been reappointed Medical Officer of Health for the Newmarket, Saffron-Walden, Dunmow, Risbridge, and Linton Rural Sanitary Districts, and the Saffron-Walden Urban Sanitary District.

BRISCOE, W. T., M.R., C.M., has been appointed Medical Officer for the Pewsham District of the Chippenham Union, Wilts, vice Jay, resigned.

CAMPBELL, D., M.D., has been appointed Medical Officer and Public Vaccinator for No. 1 District and the Workhouse of the Calne Union, Wilts.

CANTLIE, J., M.D., M.A., has been appointed Surgical Registrar to the Charing-cross Hospital, vice McHardy, resigned.

CARTWRIGHT, J., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for No. 3 District of the Calne Union.

CHANNERIS, M., M.D., has been elected to the Professorship of the Practice of Medicine in Anderson's University, Glasgow.

CHRISTIE, Dr. J., has been appointed Medical Officer to the Vale of Clyde Lodge of Odd Fellows, Glasgow, vice Tindal, deceased.

EMMERSON, J. B., M.R.C.S.E., has been appointed Resident Surgeon to the Memorial Hospital, Jarrow, vice Hefferman, resigned.

FISHER, J. B., L.A.H.D., has been appointed Apothecary to the Meath Hospital and co. Dublin Infirmary.

GOODWIN, R. D., F.R.C.S.E., L.S.A.L., has been reappointed Medical Officer and Public Vaccinator for the Mayfield District of the Ashbourne Union.

HACKNEY, J., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Sellinge District of the Elham Union, Kent, vice Bain, resigned.

HOOPS, S. E., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Dunglow Dispensary District of the Glenties Union, co. Donegal, vice Spencer.

HORNE, T., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed House Surgeon and Apothecary to the Salisbury Infirmary, vice Biggs, resigned.

HUGHES, J. E., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Llanfihangel District of the Aberystwith Union, vice Roberts, resigned.

HURLEY, Dr. S., has been appointed Medical Officer and Public Vaccinator for the Withern District of the Louth Union, vice McBeath, resigned.

ILOTT, J. J., L.R.C.P.Ed. & L.M., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Whitechapel Union Workhouse, South-grove.

JENKINS, R. W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for part of No. 3 or Fawley District of the New Forest Union, and Medical Officer of Health for part of the Fawley Sub-district of the New Forest Rural Sanitary District, vice Stephenson, resigned.

JONES, Mr. E. O., M.B., C.M., has been appointed Resident Medical Officer to the Hulme Dispensary, Manchester, vice A. E. Jones, M.B., M.R.C.S., resigned.

KING, T. H., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for No. 2 District of the Calne Union.

LAWRENCE, H., L.R.C.P.Ed., M.R.C.S.E., has been appointed Surgeon to the Court Marquis of Worcester of the Ancient Order of Foresters, Bristol, vice Dew, resigned.

LLOYD, T. F., M.R.C.S.E., M. & L.S.A.L., has been appointed Medical Officer for the newly-formed No. 10 District of the Croydon Union.

MACDONNELL, M. A., M.D., C.M., has been appointed Resident Assistant Medical Officer to the Torteth-park Workhouse and Infirmary, vice Edwards, resigned.

NICHOLLS, F., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for No. 5 District of the Croydon Union, vice Shapland, resigned.

PHILLIPS, J. A., M.R.C.S., has been appointed Resident Medical Officer to the Charing-cross Hospital, vice Cantlie, appointed Surgical Registrar.

PRATT, J. W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for No. 6 District of the Wellington Union, Somersetshire, vice Edwards, deceased.

PRITCHARD, E., M.D., has been appointed House Physician to the Glasgow Royal Infirmary, vice McPherson, resigned.

REES, R., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Combined Sanitary District of Carnarvonshire, at a salary of £800 per annum.

REID, A. W., M.B., has been appointed Medical Officer and Public Vaccinator for the No. 8 or Arnold District of the Basford Union, Notts, vice Allen, resigned.

RICHARDS, J. E., L.R.C.P.Ed. & L.M., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Woodhouse District of the Huddersfield Union, vice Osborne, resigned.

SKENE, W., M.D., has been appointed Medical Officer and Public Vaccinator for the Parish of Chingford, Epping Union, vice Turtle, resigned.

THOMAS, W. H., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Llangonoyd District of the Neath Union, for one year.

VERNON, M. H. H., M.R.C.S.E., has been appointed House Surgeon to the General Infirmary, Leeds, vice Rowell, resigned.

WILLIAMS, W., L.R.C.P.E., has been appointed Public Vaccinator for the Eastern District of Corwen Union, Denbighshire.

Births, Marriages, and Deaths.

BIRTHS.

ADRIEN.—On the 21st inst., at Balbriggan, the wife of E. W. Adrien, L.K.Q.C.P.I., of a son.

BURKE.—On the 14th inst., at Kingstown, Dublin, the wife of Thomas Hamilton Burke, L.K.Q.C.P.I., Local Government Inspector, Ireland, of a son.

BURN.—On the 16th inst., at East India-road, the wife of William Barnett Burn, M.D., of a son.

DEWAR.—On the 25th inst., at Sloane-street, the wife of John Dewar, L.R.C.P.Ed., of a daughter.

MARTIN.—On the 16th inst., at Abingdon, the wife of Paulin Martin, M.R.C.S.E., of a daughter.

MELDON.—On the 18th inst., at Merrion-square North, Dublin, the wife of Austin S. Meldon, L.K.Q.C.P.I., of a daughter.

PHILPOT.—On the 23rd inst., at Peckham-rye, the wife of Harvey J. Philpot, L.R.C.P.L., of twin daughters.

PICARD.—On the 9th inst., at Abbey-road, St. John's-wood, the wife of Peter Kirkpatrick Picard, M.D., of a daughter.

RIGBY.—On the 13th inst., at Preston, the wife of James A. Rigby, M.B., of a daughter.

RUGG.—On the 17th inst., at Grove-road, St. John's-wood, the wife of Harold Rugg, L.R.C.P.Ed., of a son.

RUTHERFORD.—On the 20th inst., at Ballinasloe, the wife of William Rutherford, M.D., of a son.

SMITH.—On the 20th inst., at Bella Vista, Lewisham-hill, the wife of Frederick H. Smith, M.D., of a son.

STEVEN.—On the 20th inst., at York-crescent, Clifton, the wife of Alexander Steven, M.D., of a daughter.

VISE.—On the 21st inst., at Holbeach, the wife of Ambrose Blithe Vise, M.R.C.S.E., of a son.

WALLACE.—On the 25th inst., at Hackney-road, the wife of Frederick Wallace, L.R.C.P.L., of a son.

MARRIAGES.

DAVIS—COOKE.—On the 20th inst., at St. John's, Sandymount, Dublin, Hugh Alexander Davis, M.D., to Helen, daughter of Hugh Cooke, Esq.

MCFADDEN—COLBECK.—On the 14th inst., at St. Mary's Catholic Church, Batley, John McFadden, M.D., to Frances, daughter of S. Colbeck, Esq.

NEVITT—DACRE.—On the 21st inst., at the Congregational Church, Otley, by the Rev. J. S. Hastie, assisted by the Rev. J. C. Cottingham, John G. Nevitt, M.R.C.S., of Chapel Allerton, near Leeds, to Susan, third daughter of the late John Dacre, of Otley.

DEATHS.

BEWLEY.—On the 25th inst., at Alexandra-terrace, Bray, Edward Bewley, L.K.Q.C.P.I., of Clara, King's County, aged 70.

CULHANE.—On the 22nd inst., at Victoria-road, Kensington, Dr. Morgan F. Culhane, aged 84.

DAVIES.—On the 24th inst., at Adelaide-road, South Hampstead, Richard Lewis Davies, M.R.C.S.E., late District Surgeon, Port Elizabeth, South Africa, aged 69.

DENNING.—On the 30th ult., at Sligo, Charles John Denning, L.A.H.D., aged 58.

FOWLER.—On the 23rd inst., at Cirencester, Edmund Oliver, eldest son of Oliver H. and Caroline Fowler, aged 6 years.

KELLETT.—On the 13th inst., at Kentish-town, Edwin Kellett, Surgeon, aged 65.

MACDONALD.—On the 11th inst., at Lofthouse, Yorkshire, Dr. John Davidson MacDonald.

MADDEN.—On the 10th inst., at Brixton, Charles Madden, Retired Surgeon, Bengal Presidency, aged 67.

MUDD.—On the 15th inst., at Deptford, William Hibbit Mudd, M.R.C.S.E., aged 48.

O'BRIEN.—On the 15th inst., at Denton, Manchester, Edward T. O'Brien, L.K.Q.C.P.I. & L.M.

SANDWITH.—On the 3rd ult., at St. Helena Bay, South Africa, Godfrey Sandwith, M.D.

SMITH.—On the 16th inst., at Prospect-vale, Liverpool, John Smith, M.D., Surgeon R.N., aged 81.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

Notes, Short Comments, and Answers to Correspondents.

PROSELYTISM IN HOSPITALS.

RELIGIOUS bigotry is detestable at any time and in any place; but exhibited in institutions founded for the relief of bodily suffering, and towards their inmates, who occupy one common ground as candidates for skilled tendance on their physical ailments, it is especially odious. Proselytism among the sick in hospitals is open to more than one objection: it contemplates making converts of people who, having their mental faculties more or less affected by bodily disease, are incapable of fully appreciating the nice distinctions of different forms of belief; and it is calculated to introduce an element of discord amongst the professional staff and other officials of an institution established for a purely secular, though benevolent, purpose. It would seem that in one or more of the Paris hospitals religious zeal is being pushed to an inconvenient and objectionable extent. Dr. Despres states that in one hospital sick people have implored him to protect them from the interference and menaces of the nuns and missionaries. Patients are secretly drenched with Lourdes water. Succulent dainties are lavished on those yielding to clerical exhortations, whilst those of firmer temper are stinted and neglected. A shocking case of this kind has come to his knowledge. At the Val de Grâce Hospital a student, generously answering to the surgeon's appeal in behalf of a soldier dying of hæmorrhage, bared his arm and let his blood be transfused into the patient's vein. After the operation he, feeling weak, asked for a glass of wine of the nun in charge. She refused because he had confessed himself a deist. In going home through the chill morning air, the student caught a severe cold. Inflammation of the lungs supervened, and he is now in a rapid consumption.

THE paper of *Dr. Dyce Duckworth* shall appear in an early number.

CASE OF OBSTRUCTION FROM EATING POTATO-SKINS; PERFORATION; DEATH.

To the Editor of THE LANCET.

SIR,—E. H——, aged sixty, called me to see her on the 7th August. She had been suffering from griping pains for about a fortnight, most severe round the umbilicus. Her stools, though passed regularly, were of a peculiar lumpy character, not unlike those of sheep. At the time of visit, however, the pain was most intense in the lumbar region, accompanied by the discharge of a small quantity of urine of high colour. She was rather addicted to drink.

On examination (1) of her alimentary system: Her tongue was found much coated with a thick brown fur; no appetite, but great thirst; frequent vomiting; abdomen distended and tympanitic; the pain was aggravated by pressure. (2) Circulatory system: The heart had a weak, irregular action, and occasionally intermitted; no murmur was detected. (3) Urinary system: Urine was in quantity about a pint in twenty-four hours, dark brown, specific gravity 1010, albumen and casts. The other systems healthy.

Progress of case.—Aug. 7th: Ordered hot fomentations and sinapisms to loins and abdomen; a sharp purge of compound jalap powder, two scruples; a diuretic mixture of digitalis, iron, and spirit of nitric ether; diet, milky.

Aug. 8th.—Easier; vomiting continues. Ordered dilute hydrocyanic acid, five minims, every three hours. Bowels have moved freely; dark, loose motion.

10th.—Urine more copious; lighter colour.

12th.—Pains in abdomen still great; belly very tense.

13th.—Bowels have not moved for two days. Ordered castor oil in strong coffee.

14th.—The oil having been vomited, a soapy injection was given, which brought away some of the small characteristic lumpy stools. She was now ordered the following pill:—Extract of belladonna, extract of nux vomica, of each half a grain; compound rhubarb pill, two grains and a half: one to be taken night and morning.

17th.—The bowels have not acted since she began the pills; the pain still unabated; vomiting also continues, even throwing up the hydrocyanic acid; but there was no rise of temperature; the pulse soft, 108. Recourse was now had to subcutaneous injections of atropia (1-60th of a grain), and rectal injections, by means of the long tube, of soap, castor oil, assafœtida, and dill-water. The latter proved of little avail; but the former relieved the pain considerably.

19th.—The two injections have been repeated at intervals; but the bowels still refuse to act, the injections being retained but for a very short time.

21st.—Still in great agony; the atropia gives relief for an hour or two; abdomen very tense.

22nd.—At 7 A.M. she heard a distinct crack, as of something giving way, and at 9 A.M. she died.

Post-mortem appearances.—On opening the peritoneum, it was seen to be filled with a large quantity of a dark fluid, exactly resembling a "coffee-ground vomit." The intestines, being very much distended, had to be punctured in various places to admit of their examination through their entire length. They were then traced from stomach to rectum; but the actual seat of the obstruction was not discovered. The great intestine was considerably injected throughout its entire extent; the small was not so, neither was any lymph to be seen. Throughout the fluid in the peritoneum were the skins of potatoes in great abundance, and it was acknowledged by the woman's friends that she was in the habit of eating potatoes and their skins along with them. It was evident that the fluid and skins together had found their way into the peritoneum through the perforation or crack which the woman heard at 7 A.M. The kidneys were congested and fatty, and it is just possible that the very acute attack to which they were subjected was a mild attempt on their part to do a vicarious duty for the obstructed bowel.

Yours &c.,

September, 1876. M.A., M.B.

FRENCH WINES.

ACCORDING to the *Economist*, the Paris Syndicate of Wine Merchants is most anxious to put down the practice of colouring wine. They complain that since the harvest of 1875 the practice "has assumed proportions truly disquieting from the point of view of the reputation, the quality, and the future of French wines, not less than from that of the public health and the public morals." The substances used in the traffic are more or less poisonous, such as arsenical fuchsine, rosaniline, &c., the former being specially noxious, as proved by experiments on dogs, as well as by the effects on a laboratory attendant. The Syndicate would not prevent the mixing of wine, nor even the addition of foreign substances; they would permit the strengthening of weak wine by adding alcohol, and the sweetening of acid wine by adding sugar. But they will not go further than this. They now demand of the Government the prohibition of the sale of the articles used in the colouring process. French wines are so largely and increasingly consumed in this country that we cannot but view with interest and approval the attempt of French wine merchants to minimise the practice of sophisticating the vine produce.

R. M.—We should see no impropriety in making the usual charges in such a case.

THE TREATMENT OF SNAKE-BITE.

To the Editor of THE LANCET.

SIR,—Some time since, having been engaged in perusing a narrative of the various attempts made by medical men for the cure of snake-bite in India, in which was related the failure of all the means employed, including the much-vaunted eau de luce and the common ligature, it occurred to me that, as snake-bites are generally inflicted upon the upper or lower extremities, if the blood in the wounded limb could be immediately cut off from the general circulation, and then gradually squeezed out from the extremity, the poison might be eliminated with it. Have we not the means of effecting this in the Esmarch bandage? In case of a wound, for instance, about the calf of the leg, this useful agent, now so well known in operative surgery, could be immediately wound round the limb above the knee or below the hip, and then carried downwards, the veins about the ankle meanwhile being freely opened to allow an escape for the blood; the wound also might be incised. It would be as well, likewise, to bandage the foot upwards towards the incision in the veins. In this manner would it not be possible to eliminate a sufficient amount of the contaminated blood to prevent a fatal result? In case of the wound being situated in a leg or forearm, the limb might be allowed to refill with blood, and the operation be repeated so as to completely wash out the veins. Of course, in removing the bandages, the usual precautions would have to be taken to prevent the entrance of air into the vessels. Persons living in districts infested by poisonous snakes could easily carry about with them a few yards of Esmarch bandage, and apply the bandage themselves, and even open their own veins by means of a sharp penknife, if without a lancet. From the structure of their limbs, it would not be easy to make preliminary experiments on animals; but perhaps the difficulty in this respect might be overcome. But I am forgetting that perhaps recent legislation in reference to experiments on animals would interpose the chief difficulty.

The above is only a suggestion, of which I have necessarily had no experience in practice, and may possibly fail as a thousand others have failed. But if this suggestion should meet the eye of surgeons in India, perhaps they may deem it worthy a trial. It might also be worth while to experiment with the bandage in the case of bites from dogs suffering from hydrophobia.

I am, Sir, yours truly,
GEORGE BARRACLOUGH, M.R.C.S., &c.

Middleton-road, New Wandsworth, Sept. 25th, 1876.

J. H., (Leeds.)—When completed, the Encyclopædic Dictionary of State Medicine (Encyclopädisches Wörterbuch der Staatsarzneikunde), by Drs. Kraus and Pichler, will form the most exhaustive book of reference on the subject. It has already reached the first half of the third volume, and shows a tendency to grow under its editors' hands. The latest instalment gives an admirable account of "Longevity," particularly among "needlemakers," whose industry it describes in its health-aspects. The publisher is Enke, of Stuttgart.

Sir George Bowyer's letter shall receive attention next week.

"CHOLERA" AT NORTH SHIELDS.

To the Editor of THE LANCET.

SIR,—Having noticed in your last issue that a case of cholera was reported at North Shields, I think it is only right that I should hasten to contradict so alarming a report. I can confidently state that it was not a case of Asiatic cholera.

Your obedient servant,
North Shields, Sept. 27th, 1876. T. STEPHENS.

Fair Play.—The custom varies in different places; but it is quite in accordance with etiquette, and even kindness, for a medical man to call on newcomers.

Mr. Lloyd Roberts.—The report was duly received.

CONCENTRATED INFUSION OF QUASSIA.

To the Editor of THE LANCET.

SIR,—Quassia is a favourite tonic with many practitioners, especially those having large club and union practices. I have made infusion of quassia in the way I am about to describe for some time. I find it to answer the purpose as a bitter tonic, and it also keeps well. Pour on half a pound of quassia chips fifty ounces of boiling water, and let it stand in a warm place for four hours; when cold strain it through muslin, or filter into a bottle holding double the quantity, and then add two drachms of pure chloroform, and shake well for two or three minutes. It is now ready for use. The dose is half a drachm. This is cheap and very easily prepared. The chloroform does not prevent the addition of other drugs, as iron or alkaline salts. It also saves the addition of spirit of wine, which must be added to all concentrated infusions to make them keep.

Yours truly,
September, 1876. W. EARBY, M.D.

DETECTION OF LEAD AND IRON BULLETS IN GUNSHOT WOUNDS.

DR. J. E. UHLER lately brought before the attention of the Maryland Academy of Sciences a method for the more certain detection of leaden and iron bullets when imbedded in the tissues, as in gunshot and shell injuries especially, where they have an obscure or curved course, and cannot be readily felt by the probe. The plan and its application are extremely simple. The wound is thoroughly cleansed with pure water by means of a syringe, after which a solution of nitric acid (5 to 15 drops to a drachm of distilled water) is injected into the wound, and allowed to remain a sufficient time to come in contact with and dissolve a portion of the ball. The injected fluid is then withdrawn either by syringe or by changing the position of the patient so as to let it run out into two lots. One of them is to be tested with iodide of potassium, when, if lead be present, the well-known yellow colour will be obtained. To the other a solution of sulpho-cyanide of potassium is added, which will turn red if iron be present, or ferro-cyanide of potassium to give a blue. It is claimed that the procedure is less irritating to the patient than probing.

Dr. Stephen Mackenzie is thanked.

POISONING BY HONEYSUCKLE BERRIES.

To the Editor of THE LANCET.

SIR,—I should be glad if you could find space for the subjoined case in your journal, as it may be of interest to some of your readers.

A week or two since I was called in to see a little boy, aged about three years, who was said to be very "sick and ill," but no further information could be gathered until I saw the patient. He then presented as nearly as possible the following symptoms:—Dryness of lips, with difficulty of deglutition; thirst; numbness throughout the body; cold extremities; heart's action much accelerated and weak; decided delirium; and pupils dilated. He was, in fact, in a state of collapse, and the symptoms were sufficiently alarming. I naturally at once suspected belladonna poisoning or some other allied genus of the order *Atropaceæ*, and made inquiries as to whether the child had been eating anything of a suspicious character. I then learnt that he had been indulging in some berries during the afternoon, and from the nature of the place where it was said he had procured them I expected he had been gathering the fruit of stramonium, which would have accounted for all the symptoms. My surprise was very great, however, on being shown a specimen of the plant which had done the mischief, and which turned out to be one of the *Lonicerea* (not the *common* honeysuckle), a genus belonging to the order *Caprifoliaceæ*. It is well known that these plants have emetic and purgative properties; but I was assuredly not aware that they were capable of producing an action apparently (in the instance in question at least) so closely allied to belladonna and its group; and these having such a decided action of their own, I look upon the circumstance as not a little remarkable.

The little fellow made a perfect recovery, after sinapisms had been constantly applied to the calves of both legs and nape of neck, along with a stimulating treatment. It should have been mentioned that there was much vomiting with ejection of the fruit, to which circumstance I chiefly attribute the recovery.

Yours faithfully,
Bridlington, Sept. 10th, 1876. J. D. BRADBURN, L.F.P.S.G., &c.

Cosmopolitan, (Dublin.)—We agree with our correspondent that anthropology has not heretofore been studied, in this country at least, with the earnestness which the importance of the science would seem to demand. And the Germans in this, as in some other fields, appear to be determined to distance us. Their Anthropological Society has been for several years engaged in preparing an anthropological history of Germany, and a prehistoric map of Bavaria, referring to cave dwellings and kindred matters, is, we believe, about to be published, with a craniology of the inhabitants of that country.

GOUT AND ALCOHOL.

To the Editor of THE LANCET.

SIR,—Can any of your readers inform me if they ever knew of a case of gout in any person who was what is called a teetotaler or alcoholic abstainer?

Yours obediently,
Sept. 25th, 1876. C. D.

One of the A.M.D. had better ascertain what is the regulation or custom under the circumstances from his military friends.

Mr. J. M. Scott.—Our opinion is that A. B. could not, under the circumstances, reasonably object to C. D. continuing his attendance on the case.

ABERDEEN UNIVERSITY.

To the Editor of THE LANCET.

SIR,—Would you allow me, through the medium of your journal, to draw the attention of students intending to enter at the University of Aberdeen to the following new regulation, which I think is not generally known, and the merits of which I shall not discuss? It is as follows:—"Candidates must enter in the summer session if they wish to graduate at the end of the winter session, and no candidate will be allowed to enter in November with the understanding of graduating in the following July as hitherto, and that a candidate can make residence by either attending two winter courses or one such course *after* a previous summer." So that if a candidate wants to graduate with a residence at Aberdeen of only nine months, he must take his summer session first. What difference can it possibly make which session a man takes first as long as he does his nine months? I have spoken to men who have graduated at Aberdeen, and asked them why they did not go to Queen's University, Ireland, where only six months' residence is required, and several told me that they would have gone there had they known that they only required six months' residence; and, besides, at Queen's the M.D. degree is conferred at once without the intermediate M.B.; and, moreover, it is what all aspirants to a M.D. want—a registerable one.

Thinking that the above are not so well known as they should be, I have ventured to intrude so much on your valuable space.

I remain, Sir, yours truly,
Cannon-street-road, E., Sept. 23rd, 1876. M.D. ASPIRANS.

OBSTETRICS AT KÖNIGSBERG.

THIS famous seat of learning has added to its resources a new gynæcological clinic and teaching institution for nurses. According to Dr. Hildebrandt's recent report upon its working, puerperal fever is classed by its superintendent among the products of infection, the development of which is obviated by regulations of the minutest and most stringent kind as to cleanliness. The report, moreover, contains much that is interesting for the practitioner. His views on turning in cases of constricted pelvis are set forth at great length, and are adverse to this operation. Taken as a whole, few more valuable contributions have of late years been made to the obstetric art. It is published at Leipsic by Breitkopf and Hartel.

A REMARKABLE CASE OF CALCULUS; PYELITIS.

To the Editor of THE LANCET.

SIR,—I was sent for on Friday morning, the 8th September, to see William H——. Not being at home, Mr. Ford, my assistant, attended, and he states that he found him perfectly sensible, but in a state of collapse. By the time I arrived he was dead, having evidently died in a convulsion.

The history I obtained from the wife was that his age was twenty-three years, his trade a butcher in Newgate Market. He had been desponding lately owing to the death of two of his horses; but he got up as usual and went to his work on the day previous, and returned in his usual health. Between eight and nine o'clock they had supper of meat &c. Shortly after he was seized with a very severe pain in his chest and side. She immediately gave him some brandy, and then some castor oil, also applied some turpentine. Not getting any relief she went to a chemist for some medicine, which gave him some relief, after which he got rapidly worse, and died.

I made a post-mortem examination about forty-eight hours after, and found the viscera of the chest and abdomen loaded with blood, but otherwise healthy. The right kidney I found loaded with calculi, and each calculus had a distinct cavity of its own, averaging from the size of a walnut to a small marble. These cavities were loaded with pus, measuring altogether over half a pint. The kidney was so disorganised that it is even difficult now to recognise it.

This case appears to me to be most interesting; for these stones (I obtained ten, and they weigh twenty grains) must have been forming some time, and it is most remarkable that a man could go and do his usual work a few hours previous to his death, carrying very heavy pieces of meat on his loins with a kidney in such a condition. Unfortunately I cannot obtain any information that he ever passed gravel, pus, or bloody urine.

Faithfully yours,
FREDK. JAS. REILLY, M.R.C.S. Eng., &c.

Victoria-park-road, Hackney, Sept. 16th, 1876.

Surgeon-Major Condon, (Southsea.)—The paper has been received, and shall have our attention.

Nom de Plume.—It will be quite sufficient if the bedding is disinfected under our correspondent's supervision.

SALICYLIC ACID.

To the Editor of THE LANCET.

SIR,—In reply to your correspondent of the 16th inst., I think he will find salicylic acid the most perfect preservative of solutions of alkaloids and vegetable infusions we possess next to spirits of wine. One grain to an ounce will be sufficient to preserve vegetable infusions equal to spirits of wine (1 in 6), and in some cases is far superior to it. Tartar emetic, for instance, which, in common with all tartrates in solution, rapidly developes fungi even in weak spirits, will be preserved without change in a solution of salicylic acid (one grain to an ounce) for months. If so small a quantity as one grain to an ounce be too irritating to the eye, the solution of atropine could be made four times the strength, and three drops of water added to each drop of solution at each time of using.

It is said that brewers now use salicylic acid largely to preserve ale from mould, and prevent further fermentative changes in it, about eight grains to a gallon being sufficient for that purpose.

"A Student" need not seek far for the explanation of a phenomenon of daily occurrence in chemistry—viz., that water should precipitate salicylic acid from its spirituous solution, being soluble in twice its weight of spirits, but requiring 330 parts of water for its solution. Precisely the same occurs if water be added to an equally strong solution of toiu in spirits, and in many other cases which might be cited.

Yours &c.,
Nuneaton, Sept. 25th, 1876. A. N. COOKSON.

To the Editor of THE LANCET.

SIR,—In reply to the letter of "A Student" which appeared in your last issue, we beg to state the following:—1 part of salicylic acid is soluble only in 300 parts of water (15° R.), 4 to 5 parts alcohol, 50 parts hot oil or glycerine. In adding water to an alcoholic solution, of course solid salicylic acid will be set free in proportion to the reduction of the alcohol; and to dissolve this excess of salicylic acid that has been set free, another addition of alcohol or a proportionate quantity of water will be necessary.

Yours &c.,
Sept. 27th, 1876. B., B., C., & F.

CHLOROFORM FOR PAUPERS.

To the Editor of THE LANCET.

SIR,—I performed an operation in the Martley Workhouse the other day, in which it was necessary to have a friend to administer chloroform. As I live some way from other practitioners, I had to pay £1 for the assistance. I applied at the end of the quarter to the Board of Guardians to reimburse me for the same. Instead of doing so, they not only refused, but tried to impugn my skill and injure my practice by asserting that I had not performed the operation myself. On my proving this to be false, they refused to justify me, and took refuge in asserting that I had insulted them by my writing a letter which proved them to be wrong, accompanied by a certificate of the gentleman who assisted me, saying that I had performed the operation with my own hand.—Yours faithfully,

September, 1876. MEDICUS INSULTE ACCUSATUS.

B. H. B., (York.)—The etymology of the word "etiolated" has long been one of the *opprobria philologorum*. It was reserved, we believe, for M. Littré, the great physician and philologist, to derive it from the Latin *stipula*, French *éteule*, the pale yellow after-shoots put forth by stubble. There can be no doubt that this is the correct etymology of a word appropriated by pathologists to describe the chlorotic pallor of the female, and by botanists to denote the blanched colour of plants reared under defective solar light. By the way, a work like the "Dictionnaire de Médecine, Chirurgie, Pharmacie et des Sciences qui s'y rapportent" of MM. Littré and Ch. Robin is, in its etymological part, a desideratum in English. We hope the Sydenham Society are fulfilling their promise to supply it.

Mr. A. Wilson, (Newcastle.)—*Le Progrès Médicale* or *La Gazette Médicale*, the latter perhaps for choice.

THE SIMPLE TREATMENT OF QUINSY, ETC.

To the Editor of THE LANCET.

SIR,—For some time past I have been perplexed how to treat acute pharyngitis and tonsillitis. From having studied a rather extensive number of these common affections I have come to the following conclusions:—Gargles of alum, tannic acid, and such similar astringents are usually valueless, and I am of opinion that it is easier to "pull the bull by the horns than to push him by the rump." Alum &c. will *not* astringe the vessels sufficiently to "press back" the inflammation. My plan is to apply externally hot fomentations (with a few drops of turpentine) to the throat, and then to wrap up the whole neck in flannel. Constant heat, moisture, and mild counter-irritation are to be kept up by frequent changing of these applications. The feet must be at once put in a hot mustard bath, and if the patient will then get into bed between blankets so much the better. Gargles as hot as can be borne must be begun as soon as possible, and the most useful is a watery solution of carbolic acid (1 in 40). It has a soothing effect on the inflamed mucous membrane, besides sweetening the foul breath. If gargling cannot be performed, carbolic acid in glycerine (1 in 20 or 30) should be frequently applied by means of a feather to the parts. A brisk saline aperient may be advisable. By following this plan of treatment the inflammation subsides in a few hours, never running on to suppuration, and then a simple alum gargle may be serviceable. The advantages of the plan are—1. The carbolic acid relieves pain, checks hawking and tickling of the throat, and sweetens the foul breath. 2. The glycerine keeps moist the dry, irritated mucous membrane. 3. The hot gargle fomentations and foot-bath rapidly relieve the active congestion.

I am, Sir, yours faithfully,
LESLIE THAIN, M.R.C.S., &c.

University College Hospital, Sept. 21st, 1876.

MILITIA SURGEONS.

To the Editor of THE LANCET.

SIR,—The following questions were put to the War Office about three weeks ago, and I append the answers received to-day.

Questions.

1. Whether militia surgeons accepting the terms of the new Warrant will be considered as resigning their present commissions, and entering into an entirely new engagement?

2. Whether, in accepting the new terms, they would be considered as relinquishing all claim to compensation for the loss of nearly the whole of their professional income, which they will sustain should the terms of the new Warrant be carried out?

Answers.

1. In the event of a surgeon electing to be placed on the departmental list, he would not relinquish his present commission; but, in common with other militia medical officers accepting terms of the recent Royal Warrant, he would, when the regiment is embodied or assembled for training, be under the orders of the Director-General, A.M.D.

2. His election to be placed on the departmental list would be without prejudice to any claim he may consider he has to compensation for loss of emoluments.

Yours faithfully,
Sept. 19th, 1876. FREDK. GOODCHILD.

FEVER AT PADSTOW.

To the Editor of THE LANCET.

SIR,—Having seen the paragraph in your impression of the 23rd instant, referring to the outbreak of typhoid fever at Padstow, I think it right to inform you that about ten years ago the town was drained throughout with the underground system at a cost of £2000, and since that time to the present outbreak we have never had, to my knowledge, more than two cases of fever.

The cause of the present epidemic is unknown; but, in my opinion, we may trace it to the unusually dry summer, in consequence of which the springs on which we depend to flush the main drains were not sufficiently high to do so efficiently. The water of all our town wells has been analysed by the county analyst, whose report is as follows:—"All these waters are perfectly wholesome, containing as they do the merest trace of organic matter, and no deleterious inorganic substances."

I am happy to state that the disease is now on the decrease; but since the 1st July, when I saw the first case, I have attended 160 cases of fever, the greater part attended with excessive diarrhœa. In several instances the recovery took place in ten days, others were accompanied with either hæmorrhage or pulmonary complication, and four cases have terminated fatally.

I remain, Sir, your obedient servant,
Padstow, Sept. 20th, 1876. HENRY F. MARLEY, M.R.C.S.E., &c.

TREATMENT OF SUNSTROKE.

To the Editor of THE LANCET.

SIR,—With reference to the letter of Dr. Fox, Clifton, which appeared in your last issue, may I ask Mr. Chute, the house-surgeon of the Bristol Royal Infirmary, kindly to state what led him to use quinine hypodermically in the case of sunstroke successfully treated by him? Was it an idea of his own, or was it in consequence of any paper he had read?

Yours faithfully,
Sept. 25th, 1876. A. R. HALL, Surgeon-Major, A.M.D.

MONSTERS.

To the Editor of THE LANCET.

SIR,—The account of "Another Monstrosity" in your last issue is in many respects like one that came under my notice when I was acting as civil surgeon of Mirzapore. As the latter was, moreover, the subject of a judicial inquiry, the particulars of it may not be uninteresting.

On the 5th January, 1872, I was called upon to give an opinion in a case of suspected murder of a male infant, which had been found buried. The parents were in custody pending the investigation. The eyeballs projected, and to the ordinary observer the head appeared to have been battered in by a mallet or some such flat instrument; indeed the policeman who brought the body offered that explanation as the cause of death. There was a total absence of brain-substance and of the frontal and parietal bones. To the borders of the remaining bones a firm membrane was attached, and this enclosed a nodulated tumour of a purplish colour, which was made up of a number of cysts containing dark-coloured serum. The tumour rose about an inch above the bones, and in its shape and divisions was not unlike a natural brain, though smaller and flatter. The child, although small, appeared to have been carried the full time, and, with the exception of the faulty head, seemed perfectly formed. The nails and some hairs were present, and the foramen ovale was about four-fifths closed. I may mention that no one was hanged on this occasion.

I gave the dried preparation of the bones of the head to the College of Surgeons' museum in 1872.

I am, Sir, yours truly,

Redhill, Sept. 26th, 1876. A. R. WAGHORN, M.D., Surgeon-Major.

To the Editor of THE LANCET.

SIR,—The monster described by Mr. J. Messiter Lang in your last number appears to have been not "acephalous," but "anencephalous." Some time since I assisted at the delivery of a similar foetus, and interpreted the case as one of cvania bifida, the extra-cranial tumour having ruptured in utero, and left just such "a mass of congealed and congested tissue" as was observed by your correspondent. Yours sincerely,

Birkenhead, Sept. 27th, 1876. FRANCIS VACHER.

TREATMENT OF CHRONIC DIARRHŒA.

To the Editor of THE LANCET.

SIR,—Acting on a suggestion given in the "annotations" of THE LANCET of Sept. 16th, I gave the liquid extract of ergot (three-grain doses) to an old woman over sixty, suffering from chronic diarrhœa, which had resisted very many modes of treatment. On the third day of its exhibition the stools, from twelve to fourteen daily, had decreased to three or four, and she is now convalescent. The stools, I may remark, were for the most part serous in character. Yours &c.,

September 27th, 1876. A BART'S MAN.

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Fothergill, London; Dr. Wardell, Tunbridge Wells; Mr. Napier, Exeter; Mr. Benton, London; Dr. Gueterbock, Berlin; Mr. Lucas; Mr. Caldwell, Liverpool; Dr. Tothill, Ceylon; Mr. Collie, Homerton; Surgeon-Major Hall, London; Mr. Roe, Cambridge; Dr. Williams, Haywards Heath; Mr. Ceely, Staunton; Dr. Monckton, Maidstone; Mr. Reeves, London; Mr. Roberts, Denbigh; Mr. Chaplin, London; Mr. Thomson, Canterbury; Mr. Croft, Kettlewell; Mr. F. Mason, London; Mr. Barraclough, New Wandsworth; Mr. Cookson, Nuneaton; Dr. Hadaway, London; Dr. Coales, London; Mr. M'Gill, Leeds; Mr. Stephens, North Shields; Mr. Thain, London; Dr. Duckworth, London; Messrs. Burgoyne and Co., London; Mr. Caddy, Liverpool; Mr. Townsend, Cambridge; Dr. Gill, Folkestone; Dr. Aitken, Drongan; Mr. Kinkead, Bayswater; Mr. A. Mackie, London; Mr. Wodsworth, Dublin; Mr. Jones, Hulme; Mr. Martin; Mr. Wilson, Newcastle; Mr. Wing, London; Mr. Sinimberghi, Rome; Dr. Wiltshire; Dr. Richards, Huddersfield; Dr. Condon, Southsea; Dr. Evans, Cardiff; Mr. Hillman; Sir George Bowyer, London; Mr. Parsons; Mr. Scott; Mr. Chaloner; Mr. Bell, Fordingbridge; Mr. Kendrick; Mr. Handford, Carlisle; Dr. MacNab, Bury St. Edmunds; Dr. Renton, Shotley Bridge; Mr. Kemp; Dr. Williams, Trevor; Mr. Sparke; Dr. Markey, Padstow; Mr. Gale, Amersham; Dr. Vacher, Birkenhead; Mr. Hall; Dr. Smith, Kilburn; Mr. Fowler, Cirencester; Mr. Whitfield; Mr. Crick, Corby; Mr. F. G. Brown; Mr. Bridge; Mr. Emerson; Enquirer; C. D.; Justitia; One of the A.M.D.; The Principal of the Royal Veterinary College; Quæritor; The Registrar-General of Edinburgh; A Bart's Man; D. S.; M.R.C.S.; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from — Mr. Elliot, Hull; Mr. Hordley, Stoke-on-Trent; Dr. M'Calman, Strone; Mr. Lund, Manchester; Mr. Molyneux, Upholland; Mr. Hatchard, Banchory; Mr. Collins, Newnham; Mr. Stent, Guildford; Mr. Taylor, Romsey; Mr. Shaw; Mr. Williams; Mr. Buck; Dr. Keeling, Sheffield; Mr. Daniel, Beaminster; Mr. Davies, Pentypridd; Mr. Roberts, Birmingham; Mr. Cooper, Bolton; Dr. Smith, Royton; Dr. Hewson, Stafford; Dr. Eberle, Easingwold; Mr. Marsh, Over Darwen; Dr. Waters, Liverpool; X. Y., Retford; Zeta, Swansea; G. W.; N. G.; E. S.; J. L.; A. B., Faversham; M.D., Buckhurst Hill; B. and M., Bradford; Medicus, Preston; X. X. X.; Reflex; Medicus, Kilburn; M.R.C.S., Ventnor; P. C.; Chirurgus; R. M., Loughborough; Alpha, Surbiton; Rocket; R. M., Dovercourt; M.D.; H., Market Deeping; F. M. B., Ely; Surgeon; A. B.; C. H., Sheffield; Medicus, Blackburn.

Metropolitan, Surrey Advertiser, Western Morning News, Manchester Guardian, Newcastle Chronicle, West London Observer, Liverpool Post, Athenæum, Daily News, Record, Western Mail, Manchester Courier, Brighton Daily News, Portsmouth Times and *Cornish Telegraph* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, SEPT. 28TH, 1876.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rainfall.	Remarks at 8 A.M.
Sept. 22	30·09	S.E.	55	59	102	74	51	...	Foggy
,, 23	29·87	S.S.	59	61	93	70	57	0·03	Raining
,, 24	29·80	S.W.	60	62	89	66	51	0·04	Overcast
,, 25	29·82	W.	56	61	95	66	57	0·08	Cloudy
,, 26	29·75	S.	57	60	88	67	55	...	Overcast
,, 27	29·67	N.E.	55	57	80	62	55	0·11	Overcast
,, 28	29·47	S.W.	59	62	96	65	55	0·08	Cloudy

Medical Diary for the ensuing Week.

Monday, Oct. 2.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Oct. 3.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Oct. 4.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Mr. C. Godson and Dr. C. Godson: "Midwifery Statistics during upwards of thirty-five years of General Practice."—Dr. Galabin, "On two Cases of Pregnancy complicated by extensive Malignant Disease of the Cervix Uteri."—Dr. Redmond, "On Secondary Puerperal Hæmorrhage."—Dr. Elkington, "On Inversion of the Uterus."—Mr. Hickman, "On Inversion of the Uterus."—And other communications.

Thursday, Oct. 5.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Oct. 6.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Oct. 7.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

TERMS OF SUBSCRIPTION TO THE LANCET.

POST FREE TO ANY PART OF THE UNITED KINGDOM.

One Year ..... £1 12 6 | Six Months £0 16 3

TO THE COLONIES AND INDIA.

One Year £1 14 6

Post Office Orders in payment should be addressed to JOHN CROFT, THE LANCET Office, 423, Strand, London, and made payable to him at the Post Office, Charing-cross.

TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under ..... £0 4 6 | For half a page £2 12 0
For every additional line ... 0 0 6 | For a page 5 0 0

The average number of words in each line is eleven.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday; those from the country must be accompanied by a remittance.

N.B.—All letters relating to Subscriptions or Advertisements should be addressed to the Publisher.

Agent for the Advertising Department in France—

Mons. DE LOMINIE, 208, Rue Grenelle St. Germain, Paris.